THE PROBLEMS OF BUDGETING AND FINANCIAL DECISION PROCESS

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Many companies recognize that the traditional annual budget (produced near yearend and then used as a guide for the following year even though it is out of date) is just not good enough. Instead, they are turning to alternative budgets (forecasts) that are updated every few months. They impose new requirements on financial decision-making. Management must access and process information more quickly, and this often means a change of the current practice of data collection and processing or even acquiring special software to do the job. The budgeting process and financial decisions can be accelerated and improved in several ways, and the paper deals with advantages and disadvantages of the possible ways.

Introduction

Budgeting is most often thought of as having to do with the planning and control of revenues and expense, i.e. with managing the common operations of a business or other organization [1]. Profit budget gets most attention, because it is the area of the primary goal of a business. Therefore in many companies the balance sheet and cash flow statements are left to their own devices. But in fact balance sheet budget and cash-flow budget are logical supplements to an operating budget and bring many benefits, though less apparent; they are more profound and lasting. To provide support for financial decision-making is one of the most important functions.

However, in a world where customer loyalty is volatile, product life cycles are shortening, competitors can arise suddenly from anywhere and the best people are attracted to organizations that promote managerial freedom and responsibility, the traditional budgeting approach is a severe handicap. Put another way, budgets are barriers to competitive success when knowledge rather than capital is the scarce economic resource. Many companies recognize that the conventional static budget – produced near yearend and then used as a guide for the following year, even though it is

out of date, is just not good enough. Instead, they are turning to alternative systems such as rolling budgets or forecasts that are updated every few months – in effect, reassessing the company's outlook several times a year. The use of alternative systems of budgeting usually makes financial decision-making processes more complicated due to time pressure. But companies that decide to step up to alternative budgets may want to take advantage of the decision to make changes in the way they approach the task [2].

Alongside the quick changes in the environment, there are some other reasons to concentrate on the budgeting process and especially on the financial decision-making process. Over the last years arose new techniques and requirements related to the production process, such as environmental requirements or implementation of systems concerning quality, etc. The environmental requirements will pay a major role in the future. New investments to implement the new Environmental Management System (EMS) are necessary and very often comprise the majority of investments for following years. The implementation of EMS is expected to help organisations compete more effectively in the market [3].

For those reasons managers may search for new ways to speed up the budgeting and financial decision-making process and make it more rational.

1. Traditional financial budget

A traditional annual budget can be determined as a quantitative statement for a defined twelve-month period [4]. It usually includes planned revenues, expenses, assets, liabilities and cash flows. These statements (profit budget, balance sheet budget, cash-flow budget) comprise the so-called "Master budget". The Master budget and the supporting subsidiary budgets are used to plan and control activities for the following years. The budget provides a focus for the organization and facilitates the coordination of activities (included financial decisions) and control. It is produced near the yearend and then used as a guide for the following year, and normally it is set prior to the start of an accounting period, which is not changed in response to subsequent changes in activity or costs/revenues [2].

A complete process of budget creation is presented in the following list [1]:

Budget System Checklist

Information needed

1. Past sales figures in monetary units and physical units by
   a. Product
   b. Territory
   c. Distribution (such as dealer sales and direct sales).
2. Industry sales figures
   a. Domestic production
   b. Imports
   c. Generic competitors (who satisfy the same needs with other types of products).
3. Economic forecast.
4. Estimates of the potential market for any new product or a new group of customers.
5. Expenses
   a. Cost of goods sold
   b. Marketing, administration, and other expenses.
6. New capital equipment needed
   a. Production equipment
   b. Data processing, communication, and general office equipment

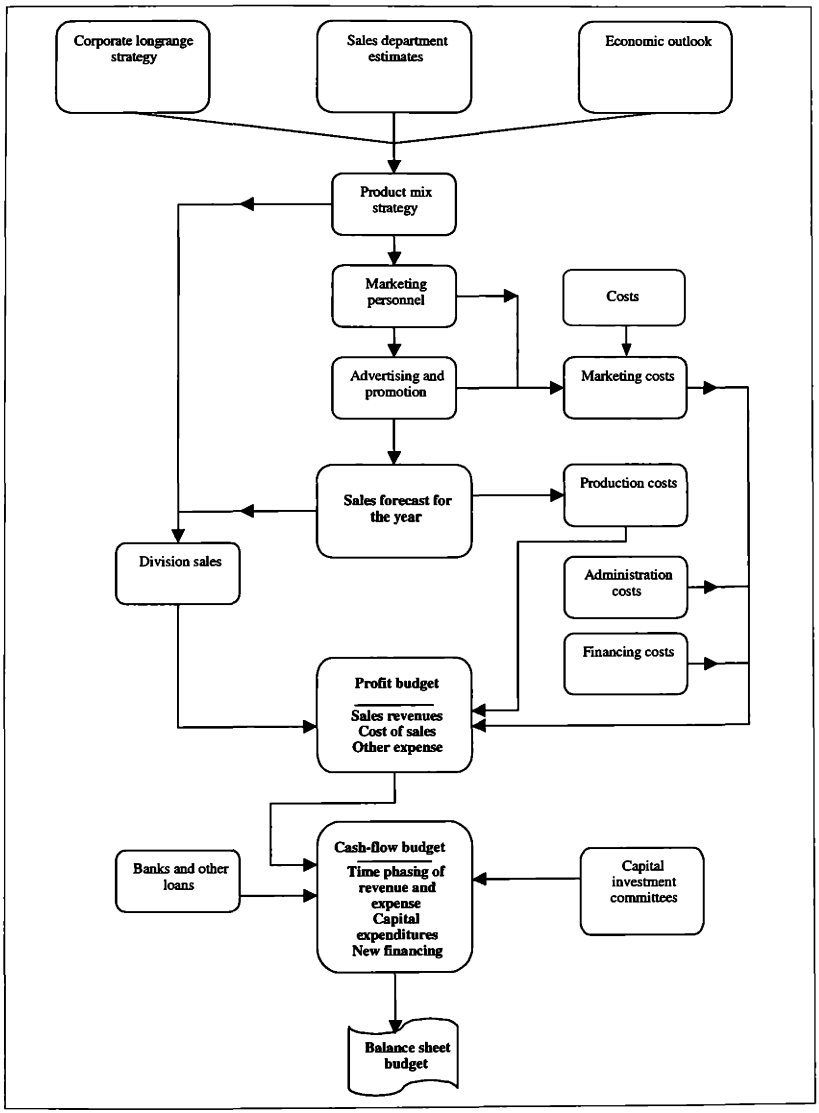

Exhibit 1. Steps in preparing financial budget [1]

c. Warehouse space, material handling equipment, and vehicles.

7. External financing requirements.

Chronology

1. Set corporate sales and profit goals.
2. Prepare standard forms and write instruction for various budgets.
3. Get ground-floor estimates of
   a. Future sales to existing customers
   b. Personnel requirements, by department throughout the company
   c. Lists of new equipment needed
   d. Existing lines of credit.
4. Prepare the required budgets
   a. Sales and profit budget
   b. Production budget
      - materials budget
      - direct labor budget
      - manufacturing overhead budget
   c. Marketing expense budget
      - sales personnel budget (salespersons and their managers)
      - sales administration budget advertising and promotion budget
      - distribution budget (including warehousing and delivery equipment expenses)
      - service and parts budget
   d. Research and development budget
   e. Administration budget (including the CEOs and the finance department)
   f. Capital-investment budget
   g. Cash-flow budget (including financing costs)
   h. Balance sheet budget
      accounts receivable budget
      inventory budgets: raw material, work in process, finished goods (units and currency), and manufacturing supplies
      - fixed-asset budget.
5. Assemble the subbudgets and prepare the financial plan or master budget.
6. Review the master budget and negotiate necessary changes with affected departments.
7. Redo the subbudgets based on the final version of the master budget.
8. Reproduce and distribute the master and subsidiary budgets.
9. Each ensuing month get actual performance figures and identify variances.
10. Conduct monthly management reviews of performance compared to budget.

All relations among the budgets can be described graphically (see Exhibit 1).

As is evident from Chronology of Exhibit 1, the whole process can be in a simplified form separated into three steps related to the particular parts of the Master budget:

1) Profit budget
2) Balance sheet budget
3) Cash-flow budget.

1.1. Profit budget

If we accept the premise that the primary purpose of a company is to create customers and thereby earn profit, then it is clear that the profit budget is the main tool to be used to ensure this primary goal. In its simplest form, business has two functions. The first function is to make a product or provide a service and the second is to sell it. All employees and all activities of a firm support one or the other or both of these functions. The profit budget sets forth the expected revenues and the costs related with producing the products, selling them, managing the business, and financing it. The profit budget is compiled from estimates by each of the several departments listed month by month.

1.2. Balance sheet budget

The balance sheet budget has a very similar format – major balance sheet items are listed month by month. This budget will reflect the levels of current and fixed assets needed to support the expected sales. Most current and long-term liabilities will also be affected over time by changes in the sales volume, and the line showing retained earnings will change each month by the amount of the profit and loss and dividends declared. The object of this budget is to ensure that the month-by-month liquidity is adequate and that the leverage is controlled.

1.3. Cash-flow budget

The cash-flow budget is a schedule of cash receipts and disbursements [1]. Its initial objective is to take a weekly or monthly reading of expected cash balances so as to determine the amount of timing of any new financing that may be needed. The final approval of the cash-flow budget may depend in part on the company's bank or other financing source. In a typical business, there is a rhythm to the ebb and flow of cash and a gradual accumulation from profit. However, the development of the profit budget will also give rise to cash needs for new capital assets. Capital investments affect the balance sheet, sometimes profoundly, and because they may be difficult or impossible to stop, decisions are usually made with a careful consideration of the capital investment committee which normally includes representatives from general management, finance, the board of directors, and, when appropriate, marketing, production, and other specialities.

Creation of financial budgets continues by testing whether the individual financial budgets are in accordance with (1) strategic plans, (2) long-term goals for selected ratios, (3) current financial, legal or managerial conditions, etc. One of the tests of the balance sheet budget and/or the cash-flow budget is the sufficiency of cash. Businesses are operated for profit, but they are operated on cash. The income budget is not complete unless it is supported by a feasible balance sheet budget. It is possible for a company to go bankrupt while making a profit – a legitimate profit. Short of that problem there is a lot of mischief and costly inconvenience that a firm can bring on itself by running out of cash. If a cash shortfall appears in any part of the budget, this is the time to plan a remedy for it. Ways to consider include the following:

- Borrowing from the bank
- Reducing receivables, inventory, or other assets
- Cutting costs
- Raising prices
- Leaning on trade creditors and others.

Once the cash shortfalls are provided for, the financial budgets should be further tested for liquidity, leverage, and profitability. At least five ratios should be employed. Ratio analysis adds dimension to the budget, for it is the harmony between assets, liabilities, and equity, the proportion of the accounts one to another, and the balance of cash flows that determine the financial capabilities of a firm.

As one can see from Exhibit 1, preparation of the profit budget is a very complex process and requires support of many other subbudgets. To speed up the whole process, new methods of data collection, new ways how to put appropriate data into a system, a new approach to the negotiation of budgeted values and finally a special software to process and calculate data can be used.

If we concentrate on the financial decision process, we can say that the first step (we can

call it the profit budget step, in Chronology from 1 to 4e) can be the financial budget created only as a draft version. It is possible that if the profit budget creation takes several months, there is no time enough to prepare and review the financial budget. A very important fact for the financial decision-making process is that the cash-flow budget can be started after finishing the profit budget. However, after creation of the profit budget it is necessary to process data as quick as possible with regard to all requirements mentioned in the beginning of this chapter. For that purpose the modern methods of data processing and managing are very useful and viable. In compliance with the previously mentioned opinion that the profit budget gets most attention, the budgeted profit and loss accounts are usually stored in the Management Information System (MIS), and for the Cash-flow budget preparation another technique such as spreadsheet calculation or a specific software connected with MIS should be used.

To provide for a more efficient budgeting process (and for also the financial decision-making process), if is necessary to speed up the whole budgeting process and to take advantages of modern information technologies to prepare information for the decision-making process quickly and automatically. The next chapter is focused on available information technologies used in the budgeting process.

2. How to speed up budgeting process

As mentioned above, management must access and process information more quickly, and this often means acquiring special software that does the job. Most organizations today rely on the Microsoft Excel spreadsheet to do their budgeting. They work, but they can be laborious, requiring finance managers to piece together input from all the operation managers throughout the organization. The budgeting process can be accelerated in several ways:

- in spreadsheets, by using Pivot tables or Macros
- directly in Management Information System (MIS), where the budgeted data are stored
- by acquiring budgeting software and its connection with a current MIS.

2.1 The spreadsheet

The use of spreadsheets is one of the most popular methods in budgeting. The MIS allows exporting data from the General Ledger to a spreadsheet. It can be massed up, recalculated and formatted to produce a final report, which can be used for the future budgeting process and control. It is possible to use a spreadsheet for planning; once the historical data from the General Ledger are available, it is easy to use this information as a basis for forecasting the future. However, there are three problems [1]:

1. The volume of information is increasing: although the structure of the general ledger remains simple, the requirements of an effective budgeting process tend to plan for more account in more of cost centers. It means that an optimum data management is required in three different ways or mathematically – in three different axes. From the historical point of view it is time (axis No. 1), usually several last months. Theoretically, up to three last years' data can be used; later data are not valid for budgeting because of turbulent changes in the environment of East European countries. The second

point of view – axis No. 2 – is managing data by cost centers or orders or processes. The third axis represents managing data by accounts.

This three-axe view made the use of spreadsheet unsuitable as a platform for planning and budgeting, because compiling a 3-D table usually is problematic. It is possible to use Pivot Tables, but in this case we lose the main advantage of spreadsheet, which is simplicity and an intelligible view over data.

2. The second problem is increased participation of departmental managers in the planning process. It requires free access to data input. While access to MIS is usually online and available for more persons at the same time, for a spreadsheet it can be only one user. The threat of data loss or mistakes by an accident cannot be ignored.
3. The third problem is related with the increased frequency of planning (as mentioned above). The traditional annual budgeting is often replaced by a combination of annual budgeting with a continuous forecasting several times during a year. Rolling forecast, quarterly forecasts are becoming standard; all these techniques increase the workflow and data management requirement associated with planning.

All these problems usually lead to the necessity to use a more flexible software than a simple spreadsheet.

2.2 Programming directly in MIS

Most of companies use MIS as the most important tool for managing and control. Although the MIS is indispensable for accounting, production management, sales, distribution or controlling and contains important information about materials, cost centers, projects, etc., its usage for the budgeting process or financial decision-making is limited. A MIS usually contains several modules; for budget creation some of them are more important than others. The module for Financial Accounting (or General Ledger) is one of them. Another important module is Internal Accounting (very often called Controlling), which allows allocations of costs on cost centers or other cost elements (often called Orders). Other modules provide support. Since relevant data connection directly from different MIS modules is often difficult, exporting and following data processing is necessary. Therefore, although the MIS provides a useful view over the whole company's system, for budgeting and financial decision-making it is not so suitable and very often must be combined with other applications.

As mentioned above, from the MIS it is possible to extract a huge mass of data and later to process them in a spreadsheet. However, a standard report of MIS can be modified before extracting data to a spreadsheet. In this way we can set up an appropriate data structure, more suitable for following data manufacturing. Obviously, not all MISs work the same way, but they typically have very basic calculation facilities in the General Ledger. Usually calculations are performed as part of a report definition. Even then, many General Ledger vendors depend on bought-in report writers for calculating ratios and formatting. Report writers can creat very specific reports, which can group selected accounts of appropriate cost centers and thus create a suitable structure of profit and loss statement or another needed output. At this level usually end the basic skills of managers, but the MIS is

capable of much more. By using a low-level programming language we can create a complex system that can provide information for budgeted values on direct labor costs, raw material costs, other indirect material costs, depreciations, variance reporting, etc. Creation of programs assumes good knowledge of programming, economy and internal company's conditions. All these budgeted values come from precisely defined sales, as well as from the marketing and manufacturing budgets. To provide the best approach it is necessary to define very accurately the other values related to the manufacturing process, e.g., material information, cost center rates, manufacturing lines information, process and machinery parameters, etc.

All these requirements make budgeting and financial decision under MIS difficult. A time-consuming process starts with data collection provided by departmental managers. The programming of budgeting reports is also very difficult, and full cooperation with all departments is needed. Finally, the created programs are specific tools having the following most important attributes (Table 1):

Table 1. Attributes of programs created in MIS

Positive attributes	*Negative attributes*
Specific tool respecting all special conditions of company	Time-consuming program creation process
Easy access for all users (directly in MIS)	Difficult maintenance of programs by managers

Another possible way of calculation (performed by programming) is exporting data into a spreadsheet and performing the following calculations in a spreadsheet; this is done with Macros. Macros are a procedure, which means that the user determines the order of calculation, and they also have the look and feel of a programming language. Most spreadsheet users don't use Macros, because they can be difficult to use (as well as programming directly in MIS). Both latter methods – programming in MIS and the use of Macros in spreadsheet – are not 'user-friendly', and there is another way to effectively prepare a budget; it is the budgeting software.

2.3 Budgeting software

There are many products available that claim to be budgeting products but are very limited functionally. Some products are only a little more than a technology for interfacing the spreadsheet to the General Ledger database. Such products are a little more than a way of transferring data between the accounting system and the spreadsheet. On the other hand, there are highly flexible products, which add a lot more value.

The major calculation differences between budgeting software and spreadsheets are as follows [1]:

- the budgeting system separates calculation from data. A single calculation definition in a budgeting system can apply to a large number of entities (across all months and all cost centers)
- in a budgeting system, calculation can be easily documented and printed
- the outputs from a budgeting system are 'user-friendly'. Usually every single number can be 'tracked' through a budgeting system to lower levels and its original source can be easily found. Besides, the budgeting systems usually are interactive and graphically well prepared to provide a well-arranged data output.

It should be noted that more sophisticated budgeting systems are expensive and require additional costs to be arranged properly to take advantage of all possible facilities. In particular, to fill in all required data requires a more efficient data collection.

Companies that use a specially designed budget planning, forecasting and analysis software products can easier allocate expenses among different segments of the business, and the managers can spend more time on analyzing the data and financial decision-making. This kind of software makes it easier for managers to access, enter and share data on a real-time basis, usually using the Internet as a communication medium.

2.4 Feedback: profit budget – cash-flow budget

In the budget creation process, corrections can be made in the profit budget. They may be needed for many reasons such as a new information on the estimated sales, requirements of future financing, etc. These changes can have a great impact on the profit budget and simultaneously on the cash-flow budget and balance sheet budget. At this moment can arise a threat that the cash-flow budget has become obsolete and revision of all financial decision steps is needed. To provide an effective and useful feedback between the profit and cash-flow budgets, a simple spreadsheet calculation can be made. To avoid the previously described problems of spreadsheet, it must be said that these methods can be used only for a rapid compilation of the balance sheet and cash-flow budgets. To provide a quick and simple feedback for the profit budget, a simplified structure of the balance sheet and cash-flow statement can be used. All data required for the balance sheet are calculated from profit and loss accounts exported from MIS, and then calculations are performed in the spreadsheet with the aid of Macros. However, for a simple 'simulation' of balance sheet and cash flow statement, standard (or sometimes additive) tools provided by spreadsheet, such as pivot Table, Accessories, Consolidation, Added inst., etc. can be used. Whatever we use, Macros or other spreadsheet tools, we must follow several basic steps:

1) enter the budgeted profit and loss accounts data into the MIS
2) export these data into the spreadsheet (the structure of data can be prepared directly in the MIS, but a simple ascending order of accounts is sufficient)
3) rearrange the data into groups for future counting of appropriate balance sheet accounts and cash-flow impacts (every group corresponds to one line in balance sheet statement)
4) in every group it is necessary to set up formulas to gain the expected impact of changing profit and loss accounts on balance sheet accounts. It must follow specific conditions of a company, e.g.; payment conditions, average inventory flow, investments objectives, strategic goals, conditions for creating provisions, tax conditions, etc.
5) in the same way to calculate the impact on cash-flow statement, if any
6) set up all formulas and references to create the budgeted balance sheet and cash-flow statements.

All calculations in these steps can be 'fixed' and thus easily updated. The subsequent changes in the budgeted profit and loss account must be changed in the MIS (Step No. 1), but all other steps can be made automatically without any effort, only by executing the previously

made Macro or updating the expected data in the spreadsheet file.

It should be mentioned that a careful setting of formulas in Steps 3 to 6 can save much time and costs in future when the particular items of the profit budget have been changed several times in the budgeting process. The quick feedback and expected impact on important items of the balance sheet and cash flow can speed up the budgeting process; the MIS and IT techniques play a great role in this improvement.

3. Conclusions

Many companies in Eastern Europe have problems with the traditional budgeting and financial decision-making. The absence of historical data, insufficient skills and practice very often make traditional budgets useless, because they become hopelessly outdated soon after their production. Budgeting consumes the better part of the year and involves many staff and line people [5]. To speed up the budgeting and financial decision-making process, several techniques such as programming directly in the MIS, improving budgeting in the spreadsheet or acquiring special budgeting software can be used. Each of these ways has some advantages and disadvantages: simplicity of the spreadsheet vs. the increasing mass of data to be processed (and time needed to do this) or a useful programming in MIS vs. a difficult process of compiling and maintaining these programs. Although no budgeting technique can predict the future, well-designed budgeting software allows companies to get much closer to the ideal.

Although budgeting is the key process through which management can change and direct the organisation's behaviour, it is not good enough just to make the process more efficient. After all, a simple shortening of the budgeting cycle by one month does not prevent the fact that the resulting budget is still irrelevant after only a few months. The focus of any revised budgeting process has to be on helping the organisation compete more effectively in the market. One possible way is to focus the budgeting process on implementation of the strategy, and it has to add value to the organisation [1]. Therefore, the budgeting model must be designed around the strategies and the associated tactical plans. In addition, users must be able to see how the strategies specifically affect them and how their decisions and actions impact the strategies. This strategic focus when creating budgets and reporting actual results is a departure from the traditional budgeting and reporting processes, which tend to focus on cost centers and charts of accounts. The design of such a system is a big topic and cannot be covered in detail in this paper.

On the other hand, quick updating of budgeted data is one of the indispensable conditions for the following budgeting process rearrangement and turning to alternative systems such as rolling budget or forecasts, which are updated every few months – in effect, reassessing the company's outlook several times a year. Many companies use a more or less sophisticated MIS, thus the usage of budgeting software connected with MIS is one of the best approaches to establishing an effective budgeting and financial decision-making process, which can add value to the company. However, many companies have no funds or skills enough to establish such a system, so they will take an opportunity to improve the budgeting process in a spreadsheet.

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BIUDŽETŲ SUDARYMO PROBLEMOS IR FINANSINIŲ SPRENDIMŲ PROCESAS

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Santrauka

Daugelis kompanijų valstybių pripažįsta, kad tradiciniai metiniai balansai (sudaromi metų pabaigoje ir toliau naudojami atliekant vertinimą ir kitų metų prognozėms) nėra pakankamai informatyvūs. Vietoje metinių balansų sudaromi alternatyvūs biudžetai (prognozės), kurie atnaujinami kas kelis mėnesius. Tokie balansai apibūdina naują situaciją ir leidžia priimti tikslesnius finansinius sprendimus. Vadybai reikalinga informacija apie esamą situaciją, todėl vieno metinio balanso neužtenka, dažnai tokią padėtį keičia naujos technologijos – apskaitos programos, pateikiančios atnaujintus duomenis reikiamu metu. Apskaitos ir finansinių sprendimų priėmimo procesas gali būti spartinamas ir tobulinamas keliais būdais, jų pranašumai ir trūkumai analizuojami straipsnyje.

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