**Module 4 - Background**

**BUDGETING, VARIANCE ANALYSIS, AND PERFORMANCE EVALUATIONS**

**Modular Learning Objectives**

Keep the following objectives in mind as you work through the material in this module:

* Define the role of budgeting in an organization.
* Identify the use of budgets.
* Recognize different types of budgets.
* Prepare and analyze budgets.
* Differentiate between a static budget and a flexible budget.
* Apply variance analysis.

**Required Reading**

This module covers budgeting and variance analysis. Explore these topics further while keeping the above six objectives in mind. Click on the three arrows to explore each topic in more detail.

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Time and money are scarce resources to all individuals and organizations; the efficient and effective use of these resources requires planning. Planning alone, however, is insufficient. Control is also necessary to ensure that plans actually are carried out. A budget is a tool that managers use to plan and control the use of scarce resources. A budget is a plan showing the company’s objectives and how management intends to acquire and use resources to attain those objectives.

<https://www.youtube.com/watch?time_continue=5&v=pCwLhz0ltlE>

Companies, nonprofit organizations, and governmental units use many different types of budgets. Responsibility budgets are designed to judge the performance of an individual segment or manager. Capital budgets evaluate long-term capital projects such as the addition of equipment or the relocation of a plant.

The budgeting process involves planning for future profitability because earning a reasonable return on resources used is a primary company objective. A company must devise some method to deal with the uncertainty of the future. A company that does no planning whatsoever chooses to deal with the future by default and can react to events only as they occur. Most businesses, however, devise a blueprint for the actions they will take given the foreseeable events that may occur.

A budget: (1) shows management’s operating plans for the coming periods; (2) formalizes management’s plans in quantitative terms; (3) forces all levels of management to think ahead, anticipate results, and take action to remedy possible poor results; and (4) may motivate individuals to strive to achieve stated goals.

Companies can use budget-to-actual comparisons to evaluate individual performance. For instance, the standard variable cost of producing a personal computer at IBM is a budget figure. This figure can be compared with the actual cost of producing personal computers to help evaluate the performance of the personal computer production managers and employees who produce personal computers.

Many other benefits result from the preparation and use of budgets. For example: (1) businesses can better coordinate their activities; (2) managers become aware of other managers’ plans; (3) employees become more cost conscious and try to conserve resources; (4) the company reviews its organization plan and changes it when necessary; and (5) managers foster a vision that otherwise might not be developed.

The planning process that results in a formal budget provides an opportunity for various levels of management to think through and commit future plans to writing. In addition, a properly prepared budget allows management to follow the management-by-exception principle by devoting attention to results that deviate significantly from planned levels. For all these reasons, a budget must clearly reflect the expected results.

Failing to budget because of the uncertainty of the future is a poor excuse for not budgeting. In fact, the less stable the conditions, the more necessary and desirable is budgeting, although the process becomes more difficult. Obviously, stable operating conditions permit greater reliance on past experience as a basis for budgeting. Remember, however, that budgets involve more than a company’s past results. Budgets also consider a company’s future plans and express expected activities. As a result, budgeted performance is more useful than past performance as a basis for judging actual results.

A budget should describe management’s assumptions relating to: (1) the state of the economy over the planning horizon; (2) plans for adding, deleting, or changing product lines; (3) the nature of the industry’s competition; and (4) the effects of existing or possible government regulations. If these assumptions change during the budget period, management should analyze the effects of the changes and include this in an evaluation of performance based on actual results.

Budgets are quantitative plans for the future. However, they are based mainly on past experience adjusted for future expectations. Thus, accounting data related to the past play an important part in budget preparation. The accounting system and the budget are closely related. The details of the budget must agree with the company’s ledger accounts. In turn, the accounts must be designed to provide the appropriate information for preparing the budget, financial statements, and interim financial reports to facilitate operational control.

Management should frequently compare accounting data with budgeted projections during the budget period and investigate any differences. Budgeting, however, is not a substitute for good management. Instead, the budget is an important tool of managerial control. Managers make decisions in budget preparation that serve as a plan of action.

The period covered by a budget varies according to the nature of the specific activity involved. Cash budgets may cover a week or a month; sales and production budgets may cover a month, a quarter, or a year; and the general operating budget may cover a quarter or a year.

Budgeting involves the coordination of financial and nonfinancial planning to satisfy organizational goals and objectives. No foolproof method exists for preparing an effective budget. However, budget makers should carefully consider the conditions that follow:

**Top management support**

All management levels must be aware of the budget’s importance to the company and must know that the budget has top management’s support. Top management, then, must clearly state long-range goals and broad objectives. These goals and objectives must be communicated throughout the organization. Long-range goals include the expected quality of products or services, growth rates in sales and earnings, and percentage-of-market targets. Overemphasis on the mechanics of the budgeting process should be avoided.

**Participation in goal setting**

Management uses budgets to show how it intends to acquire and use resources to achieve the company’s long-range goals. Employees are more likely to strive toward organizational goals if they participate in setting them and in preparing budgets. Often, employees have significant information that could help in preparing a meaningful budget. Also, employees may be motivated to perform their own functions within budget constraints if they are committed to achieving organizational goals.

**Communicating results**

People should be promptly and clearly informed of their progress. Effective communication implies (1) timeliness, (2) reasonable accuracy, and (3) improved understanding. Managers should effectively communicate results so employees can make any necessary adjustments in their performance.

**Flexibility**

If significant basic assumptions underlying the budget change during the year, the planned operating budget should be restated. For control purposes, after the actual level of operations is known, the actual revenues and expenses can be compared to expected performance at that level of operations.

**Follow-up**

Budget follow-up and data feedback are part of the control aspect of budgetary control. Since the budgets are dealing with projections and estimates for future operating results and financial positions, managers must continuously check their budgets and correct them if necessary. Often management uses performance reports as a follow-up tool to compare actual results with budgeted results.

The term budget has negative connotations for many employees. Often in the past, management has imposed a budget from the top without considering the opinions and feelings of the personnel affected. Such a dictatorial process may result in resistance to the budget. A number of reasons may underlie such resistance, including lack of understanding of the process, concern for status, and an expectation of increased pressure to perform. Employees may believe that the performance evaluation method is unfair or that the goals are unrealistic and unattainable. They may lack confidence in the way accounting figures are generated or may prefer a less formal communication and evaluation system. Often these fears are completely unfounded, but if employees believe these problems exist, it is difficult to accomplish the objectives of budgeting.

Problems encountered with such imposed budgets have led accountants and management to adopt participatory budgeting. Participatory budgeting means that all levels of management responsible for actual performance actively participate in setting operating goals for the coming period. Managers and other employees are more likely to understand, accept, and pursue goals when they are involved in formulating them.

Within a participatory budgeting process, accountants should be compilers or coordinators of the budget, not preparers. They should be on hand during the preparation process to present and explain significant financial data. Accountants must identify the relevant cost data that enables management’s objectives to be quantified in dollars. Accountants are responsible for designing meaningful budget reports. Also, accountants must continually strive to make the accounting system more responsive to managerial needs. That responsiveness, in turn, increases confidence in the accounting system.

Although many companies have used participatory budgeting successfully, it does not always work. Studies have shown that in many organizations, participation in the budget formulation failed to make employees more motivated to achieve budgeted goals. Whether or not participation works depends on management’s leadership style, the attitudes of employees, and the organization’s size and structure. Participation is not the answer to all the problems of budget preparation. However, it is one way to achieve better results in organizations that are receptive to the philosophy of participation.

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A master budget consists of a projected income statement (planned operating budget) and a projected balance sheet (financial budget) showing the organization’s objectives and proposed ways of attaining them. We emphasize the master budget because of its prime importance to financial planning and control in a business entity.

The budgeting process starts with management’s plans and objectives for the next period. These plans take into consideration various policy decisions concerning selling price, distribution network, advertising expenditures, and environmental influences from which the company forecasts its sales for the period (in units by product or product line). Managers arrive at the sales budget in dollars by multiplying sales units times sales price per unit. They use expected production, sales volume, and inventory policy to project cost of goods sold. Next, managers project operating expenses such as selling and administrative expenses.

This module cannot cover all areas of budgeting in detail—entire books have been written on budgeting. However, the following video provides an overview of a budgeting procedure that many successful companies have used.

<https://www.youtube.com/watch?v=n0iddr99fD4>

We begin the budget process by discussing the planned operating budget or projected income statement.

The projected balance sheet, or financial budget, depends on many items in the projected income statement. Thus, the logical starting point in preparing a master budget is the projected income statement, or planned operating budget. However, since the planned operating budget shows the net effect of many interrelated activities, management must prepare several supporting budgets (sales, production, and purchases, to name a few) before preparing the planned operating budget. The process begins with the sales budget.

**Operating Budgets**

In this Operating Budget section, we will discuss the following budgets:

* Sales Budget
* Selling and Administrative Expense Budget
* Income Statement

**Sales budget**

The cornerstone of the budgeting process is the sales budget because the usefulness of the entire operating budget depends on it. The sales budget involves estimating or forecasting how much demand exists for a company’s goods and then determining if a realistic, attainable profit can be achieved based on this demand. Sales forecasting can involve either formal or informal techniques, or both. The video below illustrates a sales budget (watch the first 4 minutes of the video only for the sales budget).

<https://www.youtube.com/watch?time_continue=1&v=frCX_bsFsao>

Formal sales forecasting techniques often involve the use of statistical tools. For example, to predict sales for the coming period, management may use economic indicators (or variables) such as the gross national product or gross national personal income, and other variables such as population growth, per capita income, new construction, and population migration.

To use economic indicators to forecast sales, a relationship must exist between the indicators (called independent variables) and the sales that are being forecast (called the dependent variable). Then management can use statistical techniques to predict sales based on the economic indicators.

Management often supplements formal techniques with informal sales forecasting techniques such as intuition or judgment. In some instances, management modifies sales projections using formal techniques based on other changes in the environment. Examples include the effect on sales of any changes in the expected level of advertising expenditures, the entry of new competitors, and/or the addition or elimination of products or sales territories. In other instances, companies do not use any formal techniques. Instead, sales managers and salespersons estimate how much they can sell. Managers then add up the estimates to arrive at total estimated sales for the period.

Usually, the sales manager is responsible for the sales budget and prepares it in units and then in dollars by multiplying the units by their selling price. The sales budget in units is the basis of the remaining budgets that support the operating budget.

**Selling and administrative expense budget**

The costs of selling a product are closely related to the sales forecast. Generally, the higher the forecast, the higher the selling expenses. Administrative expenses are likely to be less dependent on the sales forecast because many of the items are fixed costs (e.g. salaries of administrative personnel and depreciation of administrative buildings and office equipment). Managers must also estimate other expenses such as interest expense, income tax expense, and research and development expenses.

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**Flexible Budgets**

A budget can be adjusted for changes in assumptions or variations in the level of operations. Managers use a technique known as flexible budgeting to deal with budgetary adjustments. A flexible operating budget is a special kind of budget that provides detailed information about budgeted expenses (and revenues) at various levels of output. <https://www.youtube.com/watch?time_continue=2&v=JHVaey2WdPE>

**Static and Flexible Budget Example**

Assume that Mint, Inc. created its original income production budget based on a production level of 1,000 units. At the end of the month, it was determined that actual production was only 900 units. If we compare the static budget, which allows total costs of $6,550 with the actual amounts incurred of $6,320, it appears the manager is $230 under budget, creating a favorable variance. Variances show the difference between two numbers and are denoted as F (favorable) or U (unfavorable).

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| --- | --- | --- | --- | --- | --- |
|  |  | **Static Budget** | **Actual Amounts** | **Variances** |  |
| Units produced | **Unit Costs** | **1,000** | **900** | **100** | U |
| Variable costs: |
|      Direct labor | $2.00 | $2,000 | $1,800 | $200 | F |
|      Direct materials | $1.50 | 1,500 | 1,400 | 100 | F |
|      Factory supplies | $0.25 | 250 | 260 | 10 | U |
| Total variable costs |  | $3,750 | $3,460 | $290 | F |
| Fixed costs: |
|      Depreciation |  | $2,000 | $2,100 | $100 | U |
|      Occupancy costs |  | 800 | 760 | 40 | F |
| Total fixed costs |  | $2,800 | $2,860 | $60 | U |
| Total overhead costs |  | $6,550 | $6,320 | $230 | F |

The above variances are not very meaningful because the manager produced fewer units. We should prepare a flexible budget that shows the amount of costs allowed at the 900 units that were actually produced. The format is the same. We replace the static budget column with the flexible budget amounts and calculate the new variances.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Flexible Budget** | **Actual Amounts** | **Variances** |  |
| Units produced | **Unit Costs** | **900** | **900** | **-** |  |
| Variable costs: |
|      Direct labor | $2.00 | $1,800 | $1,800 | $0 | F |
|      Direct materials | $1.50 | 1,350 | 1,400 | 50 | U |
|      Factory supplies | $0.25 | 225 | 260 | 35 | U |
| Total variable costs |  | $3,375 | $3,460 | $85 | F |
| Fixed costs: |
|      Depreciation |  | $2,000 | $2,100 | $100 | U |
|      Occupancy costs |  | 800 | 760 | 40 | F |
| Total fixed costs |  | $2,800 | $2,860 | $60 | U |
| Total overhead costs |  | $6,175 | $6,320 | $145 | U |

Now it appears the production manager spent more than he was allowed to spend at 900 units of activity. If any of the 5 cost amounts have variances that exceed the company's minimum threshold level for investigation of variances, we would need to determine the manager in charge, determine why the variances exist, and hopefully, find remedies for any in need.

A flexible budget can be prepared for any level of activity. The advantage to a flexible budget is we can create a budget based on the ACTUAL level of production to give us a clearer picture of our results by comparing the flexible budget to actual results. This analysis would compare the actual level of activity so volume variances are not a factor and management can focus on the cost variances only.

**Check Your Understanding**

Check your understanding to make sure that you have a good grasp of the background material. If you are not comfortable with the concepts, review some of the material again or go to the optional resource for more examples.

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| **Final Thoughts**Key aspects of budgeting are planning and control. Budgets also serve as tools of communication.Planning is crucial to an organization. It provides a framework for making decisions by establishing goals, objectives, and strategies. It is oriented toward the future and involves an awareness of how today's decisions will affect tomorrow's opportunities. Planning is essential for achieving both short- and long-run organizational goals, and successful managers are continuously planning.Budgets are objective and are measurable. Results-oriented objectives are the foundation for controlling operations. Controls also involve the monitoring of the implementation of plans through performance reviews. They are used to compare actual results with objectives.A flexible budget can be adjusted for changes in assumptions or variations in the level of operations. A budget can be adjusted for changes in assumptions or variations in the level of operations. Variance analysis based on flexible budgets are therefore more meaningful than those based on a static budget. |

**Optional Reading**

For further detail refer to Dr. Walther’s accounting text and videos.

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| *https://tlc.trident.edu/content/enforced/102026-X_FUTURE_ACC201-MOD/images/principles%20of%20accounting%20icon.png?_&d2lSessionVal=CkBz8cAi7XLPYWjlL3hR3KT9X&ou=107901* | Walther, L. (2017). Chapter 21: [*Budgeting—Planning for Success*](http://www.principlesofaccounting.com/chapter-21/). <http://www.principlesofaccounting.com/chapter-21/> |