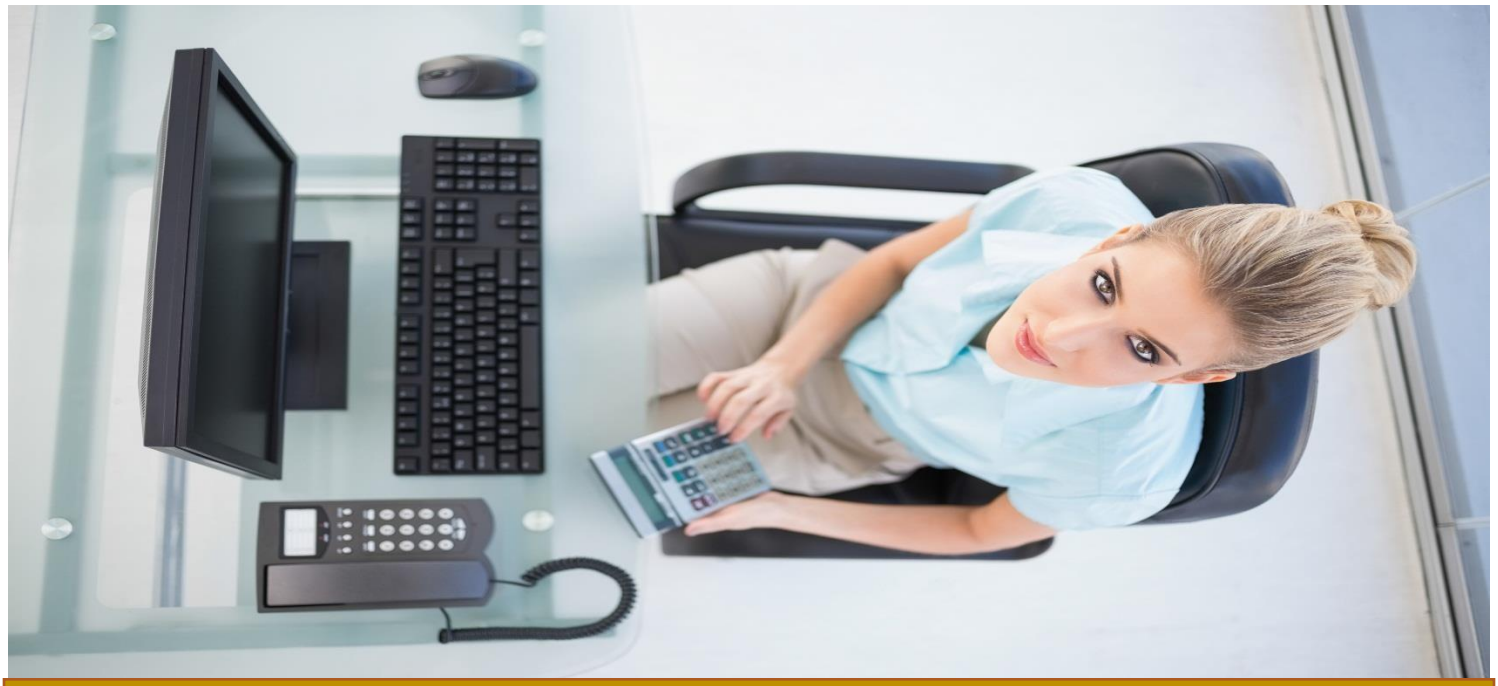

UNIT-3

Understanding Budgeting

Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ Understand the basic aspects of financial planning and the role of budgeting
- ✓ Explain various types of budgets

Unit 3

Budgeting

A good manager's job does not stop at analysing past financial statements, rather he/she needs to predict the future financial situation and plan accordingly. Having good foresight and being able to plan about future business activities are very important characteristics for a successful manager. A business runs on its finances, therefore, the need for financial planning cannot be over- emphasised. Budget is one of the most important tools that a manager has for financial planning and control.
We will begin this unit by understanding the implications and need for financial planning.

Financial Planning

Generating funds and using them efficiently with an objective to maximise the company's wealth is called financial planning. The following points need to be determined for financial planning:

- The amount of funds needed to execute future business plans;
- The kind and proportion of corporate securities, such as, shares, debentures, bonds, and bank loans, etc. which needs to be issued or raised. In other words, the pattern of financing; and
- The timing of floating various corporate securities in the market.

Budget is a set of guidelines or a yardstick that is used to control and plan the internal financial operations of a business organization. Sometimes, even a good financial plan is not enough to bring about the desired results, due to the lack of proper control and implementation. Hence, the budget is an effective managerial tool to bridge the gap between planned performance and actual performance. It helps the organisation to change its strategy and plans in light of a constantly changing environment.
This unit will deal with the meaning and formation of budget as a tool for financial control. It will also discuss the importance of budget and the various techniques for preparing it.

What Is A Budget?

The budget is a quantitative plan, expressed in monetary terms, covering a specific period of time (usually one year). It gives a systematic plan for using manpower and the business organization's material resources. It calculates estimated future costs of conducting operations and the revenues that could be earned from them.
Budgets are usually divided into two categories:

1) Capital Budget
2) Operating Budget

Capital budgets estimate and propose expenditure for new projects that require special financing, whereas, operating budgets focus on short-term operational goals, such as, future profit benchmarks, production goals etc. operating budgets are often sub-divided into departmental and functional budgets for ease.
The following are some of the main characteristics of a budget:

- It follows the organisation's long-term business strategy and goals and is prepared in advance;
- It focuses on the future, for which the organisation has already set goals and objectives to be achieved; and
- It is a quantitative statement, i.e., it isexpressed in both physical and monetary units.

A master budget, which represents the organisation's overall plan for the future, is an integration of several sectional budgets, such as, sales budget, production budget, administrative budget, expense budget, and raw-material budget, etc. The following are some of the uses of a budget:

- It makes business operations more efficient and effective;
- It is communication tool for different departments within an organization. Exact tasks are assigned to different units through the preparation of divisional, departmental, and sectional budgets. This is a way of holding each unit responsible for the task they have been assigned with and ensuring that budget figures are met;
- It can be used as a tool to motivate managers to achieve organisational goals;
- It provides benchmarks for on-going business operations;
- It establishes team spirit among the employees as their contribution towards budget preparation is appreciated;
- It reduces losses, by revealing wasteful and inefficient practices, in enough time for the managers to take corrective action.;
- It helps in performance evaluation of managers; and
- It is informative for the managers.

Budgetary Control

A budget is very closely associated with control, because none of the organisation's future plans can materialise without an efficient control system in place. Exercising financial control in an organisation, with the help of budgets, is called Budgetary Control.
Budgetary Control includes the following steps:

- Preparing various budgets;
- Comparing actual performance with budgetary estimates on a regular basis; and

- Revising budgets in light of an ever-changing environment.

Budgetary Control is a vital aspect of cost control and achieving the organisation's goals. It helps in making the organisation more efficient. However, it must not be rigid or resistant to individual initiative and changes in the financial environment.

Installing a Budgetary Control System

After establishing the significance of developing a Budgetary Control System, we need to know how such a system can be installed in an organisation. Answering the following questions will help us in our understanding of the Budgetary Control System.

- What are the organisational objectives, which need to be achieved?
- How much is an organisation most likely to achieve?
- How much can it achieve?
- What are the hurdles that the organisation will face in trying to achieve its goals and how can their effects be controlled?

After answering theses questions, the organisation must take the following steps in order to install Budgetary Control System.

Organisation for Budgeting

The first step towards Budgetary Control installation is to set up a clearly drafted plan for the organisation. This plan, which is also called the Budget Manual, must spell out the powers, responsibilities, and the areas of operation for each executive.

Responsibility for Budgeting

The preparation and implementation of budget can be assigned to specific people in the following pattern:

Budget Controller

A Budget Controller or Budget Director is the person who is directly responsible for supervising Budgetary Control System installation, although, the final responsibility rests with the Chief Executive. The Budget Controller must have thorough knowledge about the technical details of the business and he is answerable directly to the President or Chief Executive of the organisation.

Budget Committee

The Budget Controller forms a Budget Committee to assist him. This committee consists of heads of various departments, such as, sales, administration, personnel, and finance, etc. and the budget controller is the chairman of the committee. Each head of the department has his/her own sub-committee of executives working under him. It is the responsibility of the budget committee to discuss, submit, and approve budgetary estimates.

Fixation of the Budget Period

The budget period refers to the time period for which the budget is prepared and put into effect. It depends on the nature of the business and the budgetary control techniques employed by it. A seasonal business, for example, will only need to make budgets for the season that it is running operations whereas another company might need to prepare budgets for four or five years, depending on its requirement. A business must prepare budgets for both the short-term and the long-term.

Budget Procedures

The actual process of budgetary control can be developed on the following patterns after budget planning has been organized and the budget period has been set:

Key Factor

This is also known as the “limiting factor,” the ability of this factor to affect budgetary targets needs to be assessed. It is advisable to prepare the budget related to the limiting factor first, before preparing other budgets. It is important to identify and examine key factors correctly. Usually key factors are not permanent in nature and may be overcome by the management by introducing new products, changing operating practices, bringing in different raw materials, and working overtime, etc.

A list of key factors related to some industries is given below:

Industry	**Key Factor**
Motor Car	Sales demand
Aluminum	Power
Petroleum Refinery	Supply of crude oil
Electro-optics	Skilled Technicians

Hydroelectric Power Generation	Monsoon/rainfall

Making a Forecast

Forecasting refers to making an estimate of future financial conditions or results of an organization's business operations. It includes a careful consideration and analysis of probabilities. An estimate is different from a budget, because a budget gives plans about the future operations for an organisation and suggests figures based on those plans.

A budget plans the achievement of organisational goals and objectives, keeping in mind the forecasts about their company's future and drafts an outline and a plan for business operations, whereas, a forecast makes estimates purely on the basis of the likelihood of an event happening.

A forecast can be in physical or monetary terms and it can be related to sales, production, costs, resources etc. the management should have a realistic approach and should come up with a number of alternative forecasts instead of just having one.

Preparing Budgets

The actual task of budget preparation begins after forecasts have been made. Preparation of budget usually follows the order below:

- The sales budget;
- The production budget, based on production capacity and the sales budget;
- Financial budget (cash or the working capital budget), on the basis of sales and production budget; or
- The master budget-an integration of all the budgets listed above

These budgets are flexible and can be revised in light of an unexpected development or in anticipation of a change.

Choice between Fixed and Flexible Budgets

Budget can either be fixed or flexible. A budget, which is restricted or fixed by a fixed volume of activity, is called a fixed budget. Such a budget may not be an effective tool for planning and control if the actual volume of activity is different from the planned capacity for any time period i.e. a month or a quarter. A flexible budget on the other hand is more effective for changing levels of activity as it considers fixed and variable costs separately. Fixed costs refer to the costs that remain unchanged with changing levels of output, whereas, variable costs are those that change in proportion to the level of output.

Fixed costs change only when there is a change in the capacity of production. According to the flexible budget approach, the budget controller is able to analyze the difference between actual and budgeted costs, depending on the actual level of activity. This concept will be explained in further detail later on.

Classification of Budget

There are different classifications of budgets, based on time, function and flexibility. Different types of budgets fall under each category and these are illustrated in the chart below:

Chart: Classification of Budgets

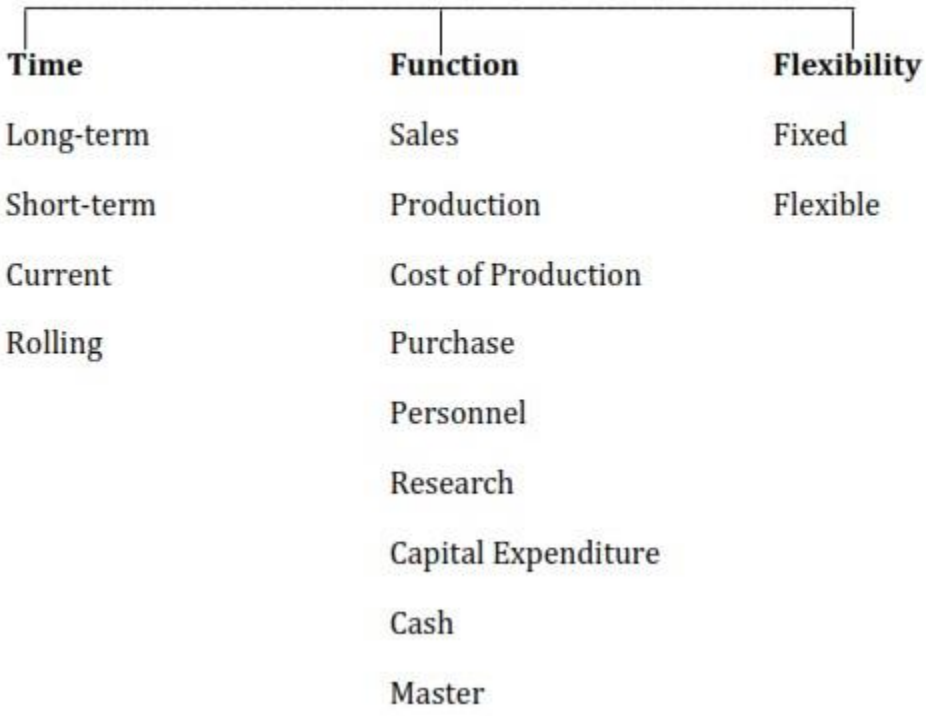

Fig. 6.1

Some of the budgets mentioned above are discussed in detail in the following pages.

Rolling Budget

A Rolling Budget is also called a "Progressive Budget." It is made for the next year and as each month, or quarter, passes, a new budget is made for the period of twelve months. The budget for the month or quarter that has passed is dropped, and figures are added for the new month or quarter.
For example, if a company ends its year on 31st December and prepares a twelve-month Rolling Budget in advance, then, they will start from January 1st. When the month of January ends in 2012, the figures

for January 2012 will be dropped and those for January 2013 will be added, hence, creating a new twelve-month budget. This process will repeat itself after the end of every month. Some companies revise a rolling budget after every quarter. In this case, when the quarter ends in 2012 on 31st March, the figures for that quarter will be dropped and new ones will be added till 31st March 2013.

Sales Budget

A Sales Budget is the basis on which the rest of the budgets are prepared. It projects the sales to be achieved within a budget period. The sales manager is the one who is responsible for preparing and executing this budget.
The various organizational and environmental factors he has to take into consideration are listed below:

Organizational factors	**Environmental Factors**
Past sales figures and trends	General trade prospects
Salesmen's estimates	Seasonal Fluctuations
Plant Capacity	Potential market
Order on hand	Degree of competition
Proposed expansion or	Government controls, rules
Discontinuation of products	and regulations relating to the
Availability of material or supplies	industry
Political situation	
Financial aspect	and its impact on the market
Cost of distribution of goods	

It is easier if the sales budget is divided on the basis of products, areas or territories, and time period.

Illustration 1

Lawson Ltd. has three sales divisions at Manchester, London, and Sheffield. They sell two products - A and B. The budgeted sales at each of the sales divisions for the year ending 31st December2012 are given below:

Manchester	Product A	50,000 units @ £ 16 each
	Product B	35,000 units @ £ 10 each
London	Product B	55,000 units @ £ 10 each
Sheffield	Product A	75,000 units @ £ 16 each

The actual sales during the same period were:

Manchester	Product A	62,500 units @ £ 16 each
	Product B	37,500 units @ £ 10 each
London	Product B	62,500 units @ £ 10 each

Sheffield	Product A	77,500 units @ £ 16 each

The sales department estimated that the sales budget for the year ending 31st December 2013 would be higher than 2012 in the following respects:

Manchester	Product A	4,000 units
	Product B	2,500 units
London	Product B	6,500 units
Sheffield	Product A	5,000 units

There will be additional sales of 12,500 units of Product A in London and 9,000 units of Product B in Sheffield due to intensive sales campaigns in both sales divisions. The sales budget for the period ending 31st December 2013 is given below:

Lawson Limited
Sales Budget

		Budget for 2013			**Budget for 2012**			**Actual Sales for 2012**		
Division	**Product**	**Qty (Units)**	**Price £.**	**Value £.**	**Qty**	**Price**	**Value**	**Qty**	**Price**	**Value**
Manchester	A	54,000	16	8,64,000	50,000	16	8,00,000	62,500	16	10,00,000
	B	37,500	16	3,75,000	35,000	10	3,50,000	37,500	10	3,75,000
	Total	91,500		12,39,000	85,000		11,50,000			13,75,000
London	A	12,500	16	2,00,000	-	-	-	-	-	-
	B	61,500	10	61,15,000	55,000	10	5,50,000	62,500	10	6,25,000
	Total	74,000		8,15,000	55,000	10	5,50,000	62,500	10	6,25,000
Sheffield	A	80,000	16	12,80,000	75,000	16	12,00,000	77,500	16	12,40,000
	B	9,000	10	90,000	-	-	-	-	-	-
	Total	89,000		13,70,000	75,000		12,00,000	-	-	12,40,000
Product	A	1,46,500	16	23,44,000	1,25,000	16	20,00,000	1,40,000	16	22,40,000
Product	B	1,08,000	10	10,80,000	90,000	10	9,00,000	1,00,000	10	10,00,000

	Total	2,54,500		34,24,000	2,15,000		29,00,000	2,40,000		32,40,000

Production Budget

This budget is an estimate of the total volume of production, distributed with respect to product and operations scheduled with respect to days, weeks and months. It also provides a forecast for the inventory of finished products. The Works Manager is responsible for the overall productions budget and departmental works managers are responsible for their respective departmental production budgets. The production budget is expressed in physical or financial terms and sometimes in both physical and financial terms. The production budget attempts to answer the following questions: what should be produced? When should it be produced? How should it be produced? Where should the production take place? The production budget is based on the sales budget in the sense that it forecasts and estimates the production program that will achieve sales targets. Other budgets such as the cash budget and cost budgets e.g. material costs budget, labor cost budgets etc. are based on production budget. The several factors that are taken into consideration before preparing the production budget are:

(i) inventory policies,
(ii) sales requirements,
(iii) stability of production,
(iv) plant capacity,
(v) production time,
(vi) availability of raw material and labor etc.

Production Costs Budgets

There are three elements of costs: Direct Material, Direct Labor and Overheads. Each element has a separate budget. The Direct Materials budget has two components:

(i) material requirement budget, and
(ii) material purchase budget.

Material requirement budget estimates the total quantity of material that is required within the budget period and material purchase budget deals with the materials that have to be bought from the market during the budget period. New materials are purchased from the market after taking into considerations the opening inventory and materials for which the company has already places orders.

Illustration 2

The Sales Director of the Andrews Electric Company expects to sell 25,000 units of a particular product within next year.
The Production Director consults the store-keeper who gives the following details:

Two kinds of raw materials, P and Q, are required for manufacturing the product. Eachunit of the final product requires 2 units of P and 3 units of Q. The estimated opening balance at the beginning of the next year is:

Finished Products	:	5,000 units
Raw Material 'P'	:	6,000 units
Raw Material 'Q'	:	7,500 units

The expected closing balance at the end of the next year is:

Finished products	:	7,000 units
Raw Material 'P'	:	6,500 units
Raw Material 'Q'	:	8,000 units

Let us prepare a statement showing material purchase budget for the next year while keeping the following formula in mind:
Units to be produced= Sales + Desired closing Stock - Opening Stock
= 25,000 + 7,000 - 5000
= 27,000 units.

Materials Purchased or Procurement Budget

	Finished Product units	**Materials in units**	
		P	**Q**
Production budget	27,000	54,000	81,000
Estimated Opening Balance	+ 5,000 32,000	- 6,000 48,000	- 7,500 73,500
Estimated Closing Balance	-7,000	+ 6,500	+ 8,000
Estimated Sales of Product	25,500		
Estimated Purchase of Materials		54,500	81,500

Direct Labor Budget: Just like the direct materials budget, the direct labor budget is divided into two categories: direct labor requirement budget and direct labor purchase budget. The Direct Labor Requirement budget deals with the total amount of labor that is required by the organization, in quantity and/or value terms. The Direct Labor Purchase Budget refers to the additional direct labor that needs to be recruited.

Overhead Budget: This deals with factory expenses, general administration, selling, and distribution, etc. therefore, separate budgets have to be prepared for different kinds of overheads i.e. factory overheads, administrative overheads, and selling and distribution overheads.

Factory Overheads Budget: Factory overheads, also known as manufacturing overheads, comprise cost of indirect labor, indirect material and indirect expenses. Factory overheads are divided into three categories:

(i) Fixed overheads, which remain constant regardless of the changing volume of output,
(ii) Variable overheads, which vary in proportion to the changing levels of output, and
(iii) Semi-variable overheads, which are both variable and fixed.

The manufacturing overhead budget estimates the overheads that will be incurred by the organization over the course of a budget period.

It is possible to estimate fixed factory overheads on the basis of past information and the knowledge of any anticipated changes in the coming budget period, whereas, variable overheads are estimated on the basis of the schedule of production and anticipated operating conditions in the budget period.

Illustration 3

A manufacturing overheads budget for the quarter ending March 31, 2013 is prepared based on the average figures from past quarters. The budgeted output for the quarter is 8000 units.
The average figures for the previous quarter are:

Fixed overheads	£ 40,000
Variable overheads	20,000 (@£ 5 per unit)
Semi-variable	20,000 (40% fixed and 60% variable @ £ 3 perunit)

Manufacturing Overheads Budget
For the Quarter ending 31st March 2013

Fixed overheads		40,000	
Variable overheads @ £5 per unit		40,000	
Semi-variable overheads	8,000		
Fixed			
Variable (@ £3 per unit)	24,000	32,000	
Total Overheads			1,12,000

Administrative Overheads Budget: This budget includes an estimate of all administrative expenses, e.g. salaries of administrative and managerial staff, after conducting an analysis of the requirements of all

administrative departments. The minimum requirements for operations are determined based on previous years' costs and on the responsibilities of the administrative departments during the current budget period. The final administrative overheads budget is prepared by combining the individual budgets for each administrative department.

Selling and Distribution Overheads Budget: This budget deals with the expenses related to selling, advertising, delivery, and distribution, etc. The responsibility for preparing this budget lies with the sales executives. The selling and distribution overheads budget is prepared on the basis of the type of product, sales division, territory, types of customers, the organization's advertising policy, research programs, analysis of the market, and various fixed and variable factors. Selling expenses must be linked to the expected volume of sales and an effort should be made to control the distribution expenses.

Illustration 4

Let us prepare a Sales Overheads Budget for the quarter ending 31st March 2013 from the estimates given below:

	£
Advertisement	12,500
Sales department salaries	25,000
Sales department expenses	7,500
Counter salesmen salaries and allowances	30,000

Commission to counter salesmen is payable at 1 % of sales executed by them.
Travelling salesmen are entitled to a commission of 10% on sales made through them and a further 5 % towards expenses.

Sales Territories	**Sales at Counters**	**Sales by Traveling Salesmen**	**Total estimated Sales**
A	4,00,000	50,000	4,50,000
B	6,00,000	75,000	6,75,000
C	7,00,000	1,00,000	8,00,000

Sales Overheads' Budget

	Estimated Sales in Territories		
	£ 4,50,000	£ 6,75,000	£ 8,00,000
Fixed Overheads			
Advertisement	12,500	12,500	12,500
Salaries of Sales Department	25,000	25,000	25,000
Expenses of Sales Department	7,500	7,500	7,500
Counter salesmen's salaries and allowances	30,000	30,000	30,000
	75,000	**75,000**	**75,000**

Variable Overheads			
Counter salesmen commission @ 1% on sales	4,000	6,000	7,000
Travelling salesmen commission @ 10 %	5,000	7,500	10,000
Expenses @ 5 %	2,500	3,750	5,000
	11,500	**17250**	**22,000**
Total sales overheads	**86,500**	**92,250**	**97,000**

Cash Budget

The Cash Budget presents an organization's expected cash inflows and outflows over a particular period of time. It involves an estimated forecast of future cash receipts and cash payments.
Anticipating incoming cash and planning the use of it are important aspects of management. Surplus cash, which is not being put to profitable use, can result in losses. Similarly, cash deficit can cause problems for the cash manager, as well.
The cash budget, therefore, helps in avoiding these losses and plans the movement of cash through the organization. Its main objective is to make sure that the organization meets all its cash commitments in time and at the same time it prevents the over accumulation of cash.
The following are some of the uses of a cash budget:

- It helps the management in estimating the organization's future cash needs;
- It helps in planning the financing of those needs; and
- It gives management control over cash and liquidity of the organization

Lets discuss components of cash budget i.e. cash inflows and cash outflows. Both these components can be divided further into operating cash flows and financial cash flows. The similarities in both are listed below:

Cash Inflows	a) Operating: cash sales, receivable collections. b) Financial: interest receipts, sale of marketable securities, issue of new securities.
Cash Outflow	a)Operating: wage payments, payments of bills and accounts payable, capital expenditure. b) Financial: dividend payments, interest payments, redemption of securities, loan repayments, purchase of marketable securities, tax payments.

Sales Work Sheet

Sales constitute for a major part of an organization's cash inflows. Sales can be divided into cash sales and credit sales. Every business has its unique terms for extending credit on sales and usually it is

ensured that credit sales do not exceed the company's permitted percentage and that receivables pay on time. It is, however, commonthat it takes some time before the total amount of sales in recovered by the company.

Let's say that a business recovers 10% of its total sales value in cash during the same month that the sales are made, 50% the next month and the remaining 40% afterwards. Monthly cash inflow due to sales can be estimated with the help of past data and future sales.

Sales Work Sheet

January to March 2013

Past Sales	Nov.	Dec.	Jan.	Feb.	March
	2012	2012	2013	2013	2013
	960	900			
Estimated future sales	-	-	900	1,000	1,000
Estimated Cash Receipts from sales	-	-			
10% of current month's sales	-	-	90	100	100
50% of last month's sales			450	450	500
40% of previous to last Month's sale			384	360	360
Total Cash Collections from receivables			924	910	960

The total cash collections from receivables will be transferred to the cash budget pro forma.

A Purchase Worksheet can be prepared in a similar manner to work out the estimated cash payments for purchases. Let's say 50% of the current month's purchases are paid in the current month, 40% in the next month and 10% afterwards.

A pro forma for a Cash Budget with hypothetical figures is presented below:

Pro forma for Cash Budget

(in£)

Estimated Cash Inflows:	**Jan.**	**Feb.**	**March**
Cash Sales (including collections of current and previous month's sales)	9.60		
Others	1.90		
Total	11.50		
Cash Outflow			
Bills for Purchases	6.83		
Factory Expenses	3.49		
Head Office Expenses	1.54		
Interest	1.21		

Others	0.40		
Total	13.47		
Excess Inflow during the month (1-2)	1.97		
Opening Cash Balance	2.32		
Closing Cash Balance (4+3)	0.35		
Minimum Cash Balance Needed	2.00		
Estimated Cash Surplus (5-6) or Deficit (6-5)	1.65		

Illustration 5

Prepare a Cash Budget for six months of 2013 for Smiths' Limited, as their Finance Manager, with the help of the following information:

a) Credit sales, cost of materials, and wages are budgeted as follows (figures for November and December of the previous year are the actual figures for those months).

Months	Credit sales	Cost of material	Wages
Nov.	30,000	5,000	10,000
Dec.	32,000	6,000	12,000
Jan.	28,000	5,000	10,000
Feb.	31,000	7,000	11,000
March.	34,000	8,000	12,000
April.	29,000	5,000	9,000
May.	30,000	6,000	11,000
June.	36,000	7,000	12,000

b) Fixed overheads amount to £ 10,000 per month.

c) Preference dividend of £ 8,000 for the half year will be due in June.

d) Income tax amount of £ 10,000 is payable in January.

e) Progress payment under a building contract are due as follows:

March 31	£ 12,000
May 31	£ 1,500

f) Goods are sold on these terms: Net cash to be paid in the following month. Experience indicates that 80% of debtors pay within the period of credit and the remainder do not pay until the following month.

g) Cost of material is payable in the month following that in which the cost is incurred. Half of the purchases are subjected to a 2% discount and the remaining amount is payable net.

h) The company pays all its accounts promptly.

Cash Budget

	Jan. (£)	Feb. (£)	March. (£)	April. (£)	May. (£)	June. (£)
a) Cash inflows						
Collection from Credit Sales:						
i) First month following sales (80% of sales)	25,600	22,400	24,800	27,200	23,200	24,000
ii) Second month following sales	6,000	6,400	5,600	6,200	6,800	5,800
Total Cash Receipts	31,600	28,800	30,400	33,400	30,000	29,800
b) Cash Outflows						
Fixed Overheads	10,000	10,000	10,000	10,000	10,000	10,000
Preference dividend		-	-	-	-	8,000
Income Tax	10,000	-	-	-	-	-
Progress Payments		-	-	-	15,000	-
Under building contracts	5,940	4,950	6,930	9,920	4,950	5,940
Purchases	10,000	11,000	12,000	9,000	11,000	12,000
Wages (assumed to be payable in the month)						
Total Cash Payments	35,940	29,950	40,930	26,920	40,950	35,940
Surplus or Deficiency	(4,340)	2,850	(10,530)	6,480	(10,950)	(6,140)

(i.e A-B)						

Purchase Budget

	January	February	March
Desired ending inventory (at cost price)	90,000	97,500	1,12,500
Add: Cost of goods (Current Month)	37,500	45,000	45,000
Total requirement	1,27,500	1,42,500	1.57,500
Less: beginning inventory	(60.000)	(90,000)	(97,500)
Purchases	67,500	52,500	60,000

It is evident, from the budget prepared above, that there will be a cash deficiency in January, March, May, and June, due to unusual cash requirements such as, preference dividends, advance income taxes, and progress payments under building contract. The cash budget enables the organization to plan its short-term financing by, let's say, obtaining overdraft facilities from the bank.

If there is a net cash deficit during a particular month, the organization should plan in advance to make up for the shortfall through borrowing or some other means of financing. Similarly, in the case of cash surplus, the company should invest the excess cash in safe securities such as government securities. However, the company must ensure that it has sufficient cash surplus to invest and that the investment is for a short period of time so that it can be converted into cash readily, and without a loss.

Master Budget

The Master Budget is the final budget, which summarises all functional budgets in a compact form. It may take the shape of a Profit and Loss Account and a Balance Sheet at the end of a budget period. It sets out plans and estimates figures for all departments for the duration of a budget period.

The Master Budget usually contains details directly related to net sales, cost of production, cash, and key account balances (debtors, fixed assets, and payables, etc.). It contains gross profit or net profit figures and important accounting ratios, as well.

The Budget Committee approves the Master Budget. Sometimes, more than one Master Budget is prepared and discussed before the Budget Committee agrees upon which budget to put into effect.

The Master Budget may have the following format:

Table 9.1: Budget Format

Period	**Normal Production Capacity ---- units**	**Budgeted Capacity --- units**	
Particulars	**Product 1**	**Product 2**	**Total**

	(£)	(£)	(£)
Sales Cost of Sales: Direct materials, Direct labour, Variable Factory Overheads, Fixed	-	-	-
Factory Overheads	-	-	-
Add: Opening Stock	-	-	-
Less: Closing Stock	-	-	-
Gross Profit	-	-	-
Administration Cost	-	-	-
Selling and Distribution Cost	-	-	-
Net Profit	-	-	-
Assets:			
Fixed	-	-	-
Current	-	-	-
Total capital employed	-	-	-
Ratios:			
Profit/Capital employed	-	-	
Sales/Capital employed	-	-	
Profit/ Turnover	-	-	
Current Ratio	-	-	-
Liquidity Ratio	-	-	-
Appropriations:			
Net Profit	-	-	
Dividends	-	-	
Reserves	-	-	
Taxes	-	-	
Balance of profit or Loss	-	-	

Fixed and Flexible Budgets

Fixed Budget:

A Fixed Budget does not change with the level of activity and is based on the standard or fixed level of activity. It can be an unrealistic estimate of future figures, in case the volume of sales or productions are not actually the same as the expected or budgeted level. The management will not be able to assess the requirements of the organization based in the fixed budget if the actual level of activity is different from the budgeted one.

That would defeat the whole purpose of preparing a budget in the first place. Therefore, based on these limitations and inability of making adjustments, organizations whose sales and production cannot be estimated accurately beforehand do not prepare a fixed budget.

Flexible Budget: The Flexible Budget contains a budgeted cost for any level of activity, i.e., it is designed in such a way that it changes with the changing level of production. It considers both the fixed and variable aspects of cost and estimates the changes that will occur in them at different levels of operation.
A Flexible Budget is the most useful budget form in the following situations:

- When the nature of business is such that it has unpredictable sales, e.g., companies dealing with luxury or semi-luxury items;
- When a new business cannot foresee future demand accurately, e.g., novelties and fashion products;
- When a business is vulnerable to natural events; and
- When a business, which is dependent on a steady supply of labour, faces a labour shortage.

Control Ratios

Ratios help in making comparisons of the company's actual performance with its budgeted performance. Budget is an essential part of planning and it also helps in evaluating performance through the following control ratios:

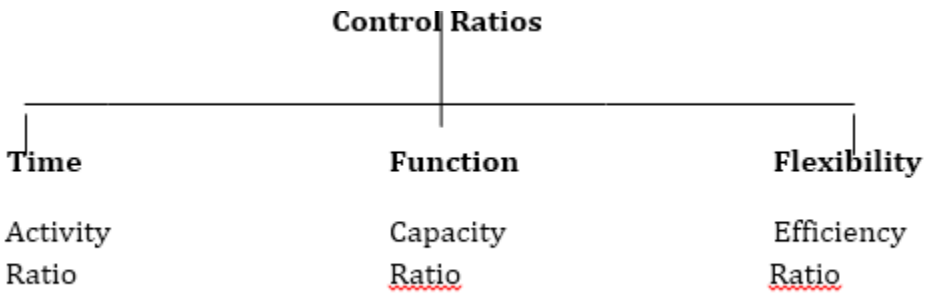

Fig. 6.2

The ratios mentioned above are expressed in percentages. Usually, if a ratio is calculated to be 100%, then, it is favourable. If it is less than 100%, then, it is said to be unfavourable.
Activity Ratio: The Activity Ratio measures the level of activity that an organization is operating at over the period of time. It is calculated by expressing the standard hours consumed for actual production as a percentage of the budgeted hours.

$$\text{Activity Ratio} = \frac{\text{Standard hours for actual production}}{\text{Budgeted hours}} \times 100$$

Capacity Ratio: This ratio measures the extent to which budgeted hours have been utilized in actual production. It is calculated by expressing the actual hours spent in production as a ratio of the maximum possible number of hours indicated in the budget.

$$\text{Capacity Ratio} = \text{Actual } \frac{\text{hours worked}}{\text{Budgeted hours}} \times 100$$

Efficiency Ratio: The Efficiency Ratio is a measure of the degree of efficiency that the organization operates at. It expresses the standard hours equivalent to actual production as a percentage of the actual hours worked.

$$\text{Efficiency Ratio} = \text{Standard } \frac{\text{hours for actual production}}{\text{Actual hours worked}} \times 100$$

Performance Budgeting

In our discussion about budgets earlier, we established that a budget is a financial expression of an organization's future plans. It estimates future levels of production, sales and ways of financing operations for a company. Therefore, in order for this tool to be effective there has to be a way to carry our performance appraisal and obtain feedback.

A traditional government budget estimates government expenditure, usually classified by type and quantity for a specific period of time. Expenditure is classified by object, and personnel by type of position. The budget is divided into sections based on organizational unit and department, and expenditure is listed based on the category. The main objective of a traditional government budget is to control expenditure, to ensure that the government is abiding by legal regulations and toobtain accountability. The budget indicates whether or not input can be matched with output, if necessary sanctions were obtained before spending moneyand the appropriation of funds. It is necessary that the input be linked with the expected outcome of the expenditure.

Performance Budgets present business activity in terms of activities, functions, programs, and projects. It is designed to correct the loopholes in a traditional budget by incorporating management approaches and both financial and physical aspects of operations.

A Performance Budget (PB) expresses the jobs and services to be rendered precisely. It is first divided into functional categories, which are further divided into programs, activities and projects. It is a

comprehensive document, which provides management control through the expression of financial and physical outcomes together.

Some of the main objectives of a PB include:

(i) coordination of financial and physical aspects,
(ii) reviewing decisions made at all levels,
(iii) improving budget formulation,
(iv) facilitating performance appraisal by the legislating and controlling bodies,
(v) making performance audit more convenient,
(vi) measuring the organization's progress towards its long-term goals, and
(vii) making business operations more transparent.

Performance budget evaluates the organization's performance with respect to individual projects and programs, and also in the context of the organization's long-term objectives. It assumes that all employees, regardless of their level, have a clear understanding of the organization's short-term and long-term objectives, as indicated in the budget. Therefore, the PB provides a definite sense of purpose and direction to all levels of management and to each employee.

One of the requirements of the performance budget is periodic performance reports, which compare actual data with budgeted figures. In order to prepare these reports, the organization's accounting system should be updated, coordinated and detailed. Each cost incurred should be easily traced back to its cost centre, which has the actual responsibility and authority over that specific cost.

Department Heads are tasked with preparing the Performance Budgets of their departments. The Department Heads are supplied with copies of the Master Budgets with details of appropriation to their respected departments. For instance, the head of purchasing department will have the information of the budget appropriated to his department so that he can make arrangements and plans for purchase of necessary materials. In turn, the Department Head collects periodic reports from various sections of his department and sends a summary report to the Budget Committee.
These reports are prepared on a daily, weekly, or monthly basis, depending on what types of businesses and contain tabulated comparisons between appropriated and actually spent figures, period and cumulative. This held the top management to be informed about the differences between budgeted and actual activity and take any corrective actions.

Zero-Based Budgeting

We have already familiarised ourselves with the formulation of different types of budgets. In traditional budgeting, it is the current level of expenditure and revenues and current operations and activities,

which decides on the formulation of the budget. Traditional budgeting works on the premise that the past allocations were accurate and will work in the future, too.

This budget usually increases year after year, despite declining efficiency, because an addition is made to the current figures in anticipation of future increments. This means that the budget does not promote operational efficiency and causes problems for management, some of which are listed below.
Wasteful activities and non-profitable programmes are not recognized, which causes avoidable losses.

- Losses and inefficiencies of previous years are carried forward to the subsequent year's budget when future levels of performance are being determined;
- Managers do not have an incentive to look for alternative ways to achieve the same objectives;
- Rational decision-making is not achievable due to a lack of cost-benefit analysis for proposed programmes; and
- The budgeting process has to be recycled because managers usually tend to overstate their budget requirement, without taking into account the lack of available funds.

Therefore, traditional budgeting techniques are not very effective considering factors such as scarce resources and the management's need to utilize these resources efficiently. Zero-based Budgeting overcomes the limitations posed by traditional budgeting by enabling managers to emphasize on key projects and to prioritise their spending.

Zero-based Budgeting entails that the organization must review the efficiency of on-going projects from time to time, in addition to making decisions for future projects. Ideally, top managers, who can take responsibility and have discretionary costs, should carry out this review. These costs are not linked with the volume of operational activity and hence, the management decides the amount to be budgeted. Examples of such costs include expenditure on research and development, legal advisory services, and personnel administration.
Zero-based Budgeting reviews programmes from a scratch. Managers, who are proposing the approval of certain projects and programs, must justify their proposal and support their fund requirement with logical evidence. No funds or projects are approved based on precedence or past practices. In other words, each program is reviewed based on its merits and the amount of output it is going to produce, keeping in view the input that it requires. Every time a new budget is prepared, all projects, new and existing, have to be justified based on their efficiency and usefulness at that point in time. Budget preparation activity involves:

- Examining all elements of managers' budget requests;
- Review and analysis of on-going projects, in addition to new activities; and
- Giving managers a range of choices from which they have to prioritise and allocate resources accordingly.

Process of Zero-Based Budgeting

Zero-based Budgeting is conducted in the following steps:
Determining the objectives of budgeting: There can be various objectives for budget preparation, for example, reducing costs, conducting thorough analysis of on-going projects and dropping the ones that are not efficient etc.

Deciding the scope of application: The extent of the application of zero-based budgeting has to be determined. In other words, it has to be decided whether the budget will apply to selected areas of the organization or across the board.

Developing decision units: Decision units, on which a cost-benefit analysis is to be conducted, are determined and then it is decided whether the programs in question will carry on or be dropped. These units are independent of each other so that they can be discontinued without having any effect on other units.
Developing decision packages: A decision package is developed along the following line of questioning:

- Is a particular activity necessary? If not, then it is discontinued.
- What was the actual cost of undertaking an activity and what were its actual tangible and intangible benefits?
- What were the estimated costs and benefits of that activity?
- Should the organization continue to perform that activity, and what should be the cost of continuing it?
- If the activity is going to continue, then should it be performed in the same way as it has been in the past?

After decision packages are prepared for each unit, they are ranked in accordance with their cost-benefit analysis. Projects that are most beneficial and important are given a higher priority. Lastly, projects having a positive cost-benefit analysis and the ability to meet the organization's objectives are chosen and implemented.
Zero-based budgeting is basically, cost-benefit analysis applied for the purpose of corporate budgeting.

Advantages of Zero-Based Budgeting

The following are some of the advantages of zero-based budgeting:

- It is a systematic evaluation technique for the organization through which it can allocate resources and prioritize programmes;

- It makes sure that the managers are only undertaking activities that are essential for the organization, and in the most efficient manner;
- Management is capable of making well-informed, rational budgetary decisions that are based on cost-benefit analysis rather than making arbitrary budget increases and decreases;
- The budget is directly linked with organizational goals as nothing is approved simply because it was done in the past. Every activity that the budget approves must coincide with the organization's objectives;
- It provides alternative courses of action for inefficient activities; and
- It implements the system of "management by objectives" in order to fulfil the goals of a traditional budget, in addition to other purposes.

One of the drawbacks of Zero-based Budgeting is that it is extremely time consuming. While this is true during the initial stages of identifying decision units and developing decision packages, it takes lesser time than traditional budget afterwards when the organization is well accustomed to the methodology. The organisation can find ways to save time and make zero-based budgeting more time efficient when it is familiarized with the technique.

Zero-based Budgeting was first used in 1962 by the U.S Department of Agriculture. It was introduced in the private sector by Texas Instruments and today, a number of companies, such as, BASF, International Harvester, and Xerox are using the Zero-based Budgeting technique.

Summary

Finance is the backbone of an organisation, therefore, financial planning and management is of the utmost importance. A budget is a quantitative projection of the organization's future financial plans such as the level of activity, expenses and revenues. A budget also acts like a source of identifying operational problems and inefficiencies and correcting them.

The Budget Controller has the prime responsibility of preparing the budget and a Budget Committee assists him/her. The Budget Committee usually comprises heads of various departments, such as, Sales, personnel, Production, Finance, and Purchase, etc. These Heads of Departments are responsible for the preparation and implementation of their respective department's budget.

The Sales Budget is prepared before any other budget and the estimates provided in the sales budget, along with production capacity, form the basis of the Production Budget. Production budget contains cost estimates associated with the production process. The Master Budget is finally prepared by combining all departments' budgets. The budget can be reviewed and revised from time to time, depending on changing circumstances.

While a Fixed Budget is based upon a fixed volume of activity, a Flexible Budget is more useful if the level of activity is likely to vary from year-to-year or season-to-season. A Flexible Budget takes account

of fixed and variable costs separately and is more useful if it is difficult to forecast the business's level f activity for the entire budget period.

Control Ratios are an important aspect of Budgetary Control as they help to compare the organization's actual performance with its budgeted performance. These ratios include the Activity Ratio, Capacity Ratio, and Efficiency Ratio. If these ratios are hundred per cent, or more, they are considered to be favourable. If they are calculated to be less than hundred percent, they are considered unfavourable.
In light of a constantly changing business and financial environment, the traditional budgeting technique has been replaces by Zero-based Budgeting. While traditional budgeting uses the current level of activity to project future operations, Zero-based Budgeting introduced a technique to evaluate all on-going and future projects in order to align them with organizational objectives. Shifting to Zero-based Budgeting is an effort to improve efficiency and cut wasteful activities by concentrating on productive programmes only. It judges each decision unit based on its current merits and profitability and makes sue that budget requirements are justified every time. Zero-based Budgeting has been adopted internationally in both the public and private sectors.

Further Reading:

- ✓ *Graham Mott, (2008), Accounting for Non-Accountants: A Manual for Managers and Students*
- ✓ *John Forster, John Wanna, (1990), Budgetary Management and Control*
- ✓ *James Oscar McKinsey, (2011), Budgetary Control.*