

Budgeting

Mr. Priyantha Biyanwila

1. Budgeting

Introduction to the chapter

Modern management believes that all the operational activities done in an organization should be pre planned because it backups the control over entire organization. The organizations will be able to coordinate different operations, by planning activities for future time periods.

The descriptive plans prepared are known as “Budgets”.

Objective of this chapter is to obtain a deep understanding about the budgeting process of an organization by practically preparing master budget and different functional budgets including cash budget.

This chapter weights 15% of the total syllabus.

I. Budgeting

Modern business world is a one which is facing different risks by having huge competitiveness and an uncertainty.

The complexity of these management problems has been influenced in developing the management tools, techniques, and systems used to successfully manage a business. Budgeting can be identified as a solid, useful and a familiar standard tool for planning and control purposes.

Nowadays budgeting is identified as an essential management technique in cost controlling and profit maximization. Resources of a business can be utilized productively if business operations are conducted in an effective manner.

For this, management parties should engage in proper planning, coordinating and controlling. Budgeting is considered as the most important tool among these.

Budget is,

A descriptive plan of future financial periods in basic. Budget is a term which is familiar for most of us. Estimation of transportation, accommodation and food expenses with the purpose of keeping a sufficient amount of money in hand when planning a trip is a practical example. We are often having attempts to compare the actual costs with budgeted amounts at the end of the trip. This is relatable in the same way to business environment as well.

Definition

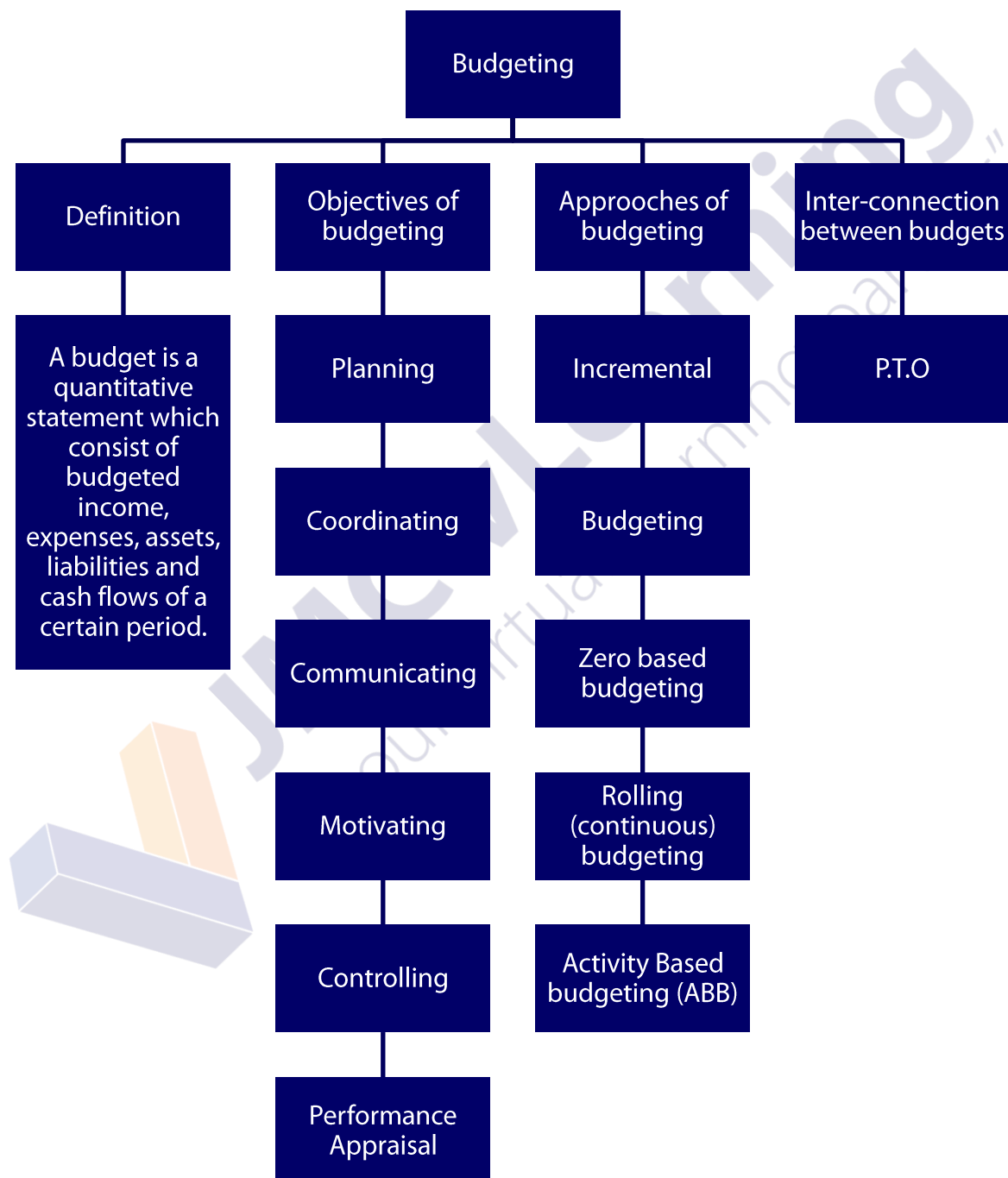
A budget is a quantitative statement which consist of budgeted incomes, expenses, assets, liabilities, and cash flows of a certain time period. A budget provides an organization a direction to go, a vision and it ease the control over activities coordination too. The planning can be carried out via fixed budget, where the control part is carried out by comparing actual budget and flexible budget.

Note: The meaning of master budget and flexible budget will be discussed later in this chapter.

Studying the above definition reveals the following factors regarding budgets.

- 1) A budget is a wide plan of objectives that a business is expecting to achieve within upcoming financial years.

- 2) A budget is a statement summarized by cash, quantities or both.
- 3) It is prepared for a definite future time period (which is next financial year)
- 4) It is prepared prior to the beginning of relevant time period.
- 5) It provides yardsticks for comparison purposes.
- 6) It shows the organizational policies to be followed in order to achieve a certain objective.



1. Planning.

There are 03 types of plans identified in a systematic organization.

1. Strategic planning

This is the long-term planning to achieve organizational objectives.

2. Budgeting planning

This pay attention from short term planning to middle term planning

3. Operational planning

This refers to the short-term planning or day to day planning.

2. Coordination

Budgeting allows coordination between all departments towards common goals.

This is another objective to be fulfilled by a budget. Budgeting system emphasizes to management that they should maintain a close relationship with other sections and have a proper understanding about others contribution towards the accomplishment of organizational goals. In other words, this integrates activities of different sections of the organization and acts as a driving force to achieve objectives.

3. Communication

The budget is a formal communication channel between senior and junior staff

Budgeting process includes managers in each level of the organization. Therefore, it is an important medium of communication between upper, middle and lower management. Upper management of an organization understands their objectives well and coordinates to achieve them through a budget. Communication should be taken place from the first step till the last step of budget preparation.

4. Motivation

Budgets provide a goal for employees to work to words rewards can be used further motivation.

Motivation can be identified as the only psychological factor present in the budget process. Obtaining the contribution of upper and lower management is a valuable approach in budget preparation and setting targets.

There should be a definite communication method for an organization to be productively conducted. It will make the parties of the organization completely aware of plans, policies, threats (challenges).

Budget is a useful tool in inducement of management behavioral pattern and accomplishment of them.

This shows that budgets are a supportive way to managers in order to manage their departments. This provides targets and makes it a powerful motivational factor.

5. Controlling

With budgeting actual results are compared against budgeted results.

This is another important aspect or an objective of budgeting. Controlling is the entire process of,

- Comparing budgets and actual results

- Identifying variances
- Analyzing the reasons needed for that
- Identifying responsibilities for the differences
- Suggesting the corrective controlling actions to be taken.

6. Performance Appraisal

Budgeting can be used to evaluate management results either departmentally or as a whole.

Budget can be known as the main and most appropriate tool of performance appraisal. Some organizations offer salary increments, job promotions by depending on the achievements of budgeted targets. It says that budgeting can be known as a method of making managers aware of the extend that they were able to achieve targets set by themselves. Using budgets over performance appraisal affects in their job behavior too.

Approaches of budgeting.

1. Incremental budgeting / Traditional approach of budgeting.
 - Budget starts from the previous period an amount is added or subtracted.
 - Inflation
 - Exchange rates
2. Zero based budgeting / Priority based budgeting.
 - In zero based budgeting every budget starts with zero and it does not consider the results of previous year.
3. Rolling Budgets / continuous budgets
 - A new period is added to the previous budget at the end of a sub-period. (usually a month or a quarter).
4. Activity based budgeting.
 - Organizations which introduced activity based costing, further introduced activity based budgeting with the intention of production cost management.

Other approaches of budgeting.

1. Top – bottom approach / Imposed budget.
Senior management decided targets and communicate them to the lower management. Lower management has a rare opportunity to decide targets) Not a participatory approach.
2. Bottom up approach
Lower management can contribute to decided targets and figures in budget (Participation Budgeting)
3. Fixed budget
Budget prepared for one level of activity this do not compare like with like
4. Flexible budget
Shows targets for the actual activity level

Main steps of budget preparing

Procedure and approach of preparing budget is getting differed from organization to organization. But below mentioned steps of preparing budgets are commonly accepted and followed by most of the organizations. Below figure illustrates few of main steps in the budget process.



1. Communication of budget policies and instructions

Here, senior management is providing required policies and guidance by depending on long term plans to parties who are engaged in budget preparation.

2. Deciding principal budget factor

Identification of principal budget factor is the next prominent step of budgeting process. As discussed in chapter 8.1.4.4 sub unit, these factors should be identified by the senior managements of every organization in case of expanding their business operations, because this is the starting point of budgeting process.

3. Preparation of Sales budget

Sales budget is the most important plan in the annual budget statement in a case where sales is the principal budget factor. Here, budgeted sales units, mix and values are presented. This is identified as the most difficult budget to plan because of the often dependence of sales revenue and demand on consumer behavior.

4. Preparation of other functional budgets and master budget

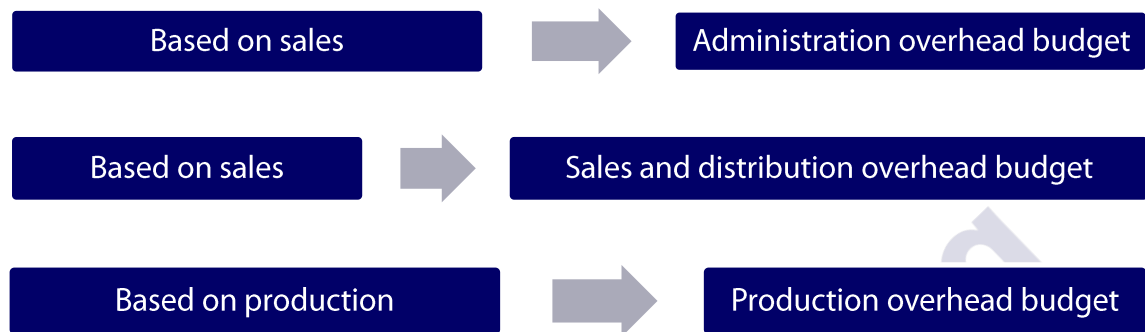
Production budget statement can be prepared using the sales budget and stock values. (Opening and closing stocks)

Machine utility budget, material budget and labour cost budget are also prepared with the use of sales budget and stock values of sales budget. (Opening and closing stocks)

Material usage budget is prepared based on the sales or productions.

Material purchased budget is prepared with the use of material usage budget details and stock values. (Opening and closing stocks)

Fixed overhead budget is prepared with the use of sales or productions.



Capital cost budget is prepared with the purpose of planning the fixed assets (capital items).

(It is all about the acquiring, selling and disposing capital items)

Cash budget is the statement which is prepared with the use of all the functional budgets mentioned above.

This inspects out the cash effect of all the planned transactions.

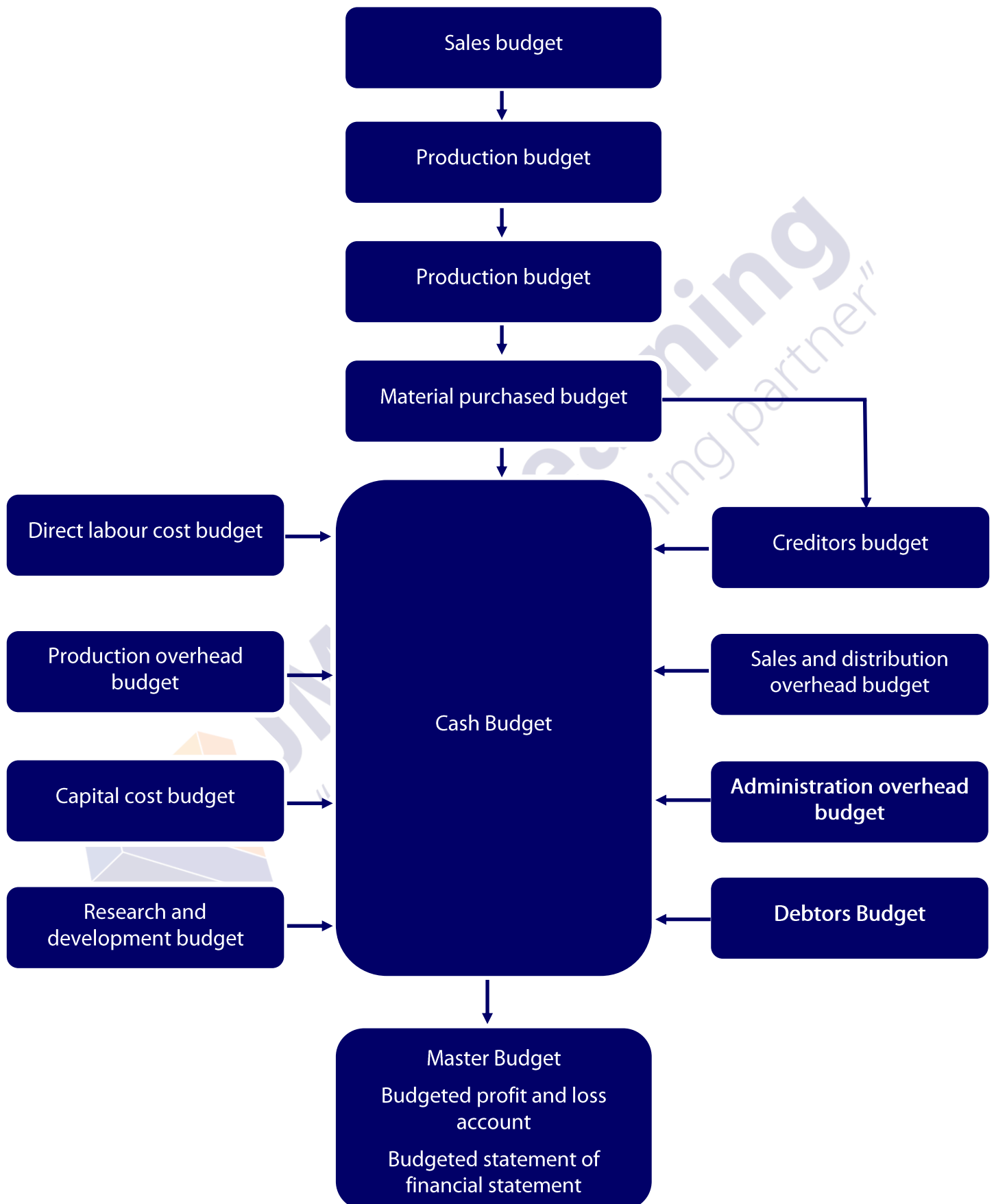
Ultimately, master budget is prepared by using the information provided in all the finalized functional budgets.

Budgeted profit and loss account and budgeted statement of financial position are prepared under the master budget.

Below figure presents the inter connection between budgets.



Interconnection between Budgets



Functional budgets commonly prepared by manufacturing organizations / Departmental budget

1. Sales budget
2. Production budget
3. Direct material usage budget
4. Direct material Purchased budget
5. Direct Labor cost budget
6. Production overhead budget
7. Selling and distribution overhead budget
8. Capital expenditure budget
9. Research and development budget
10. Cash budget

1. Sales budget

This shows the expected sales for a certain future period. This is prepared as sales value and / or sales units.

Commonly used formats

Product wise

Description	Product		
	A	B	C
Sales Units 1	xxx	xxx	xxx
Selling Price Per Unit (Rs) 2	x	x	x
Sales Revenue 1 x 2	xxx	xxx	xxx

Period wise

Description	Period		
	Jan	Feb	Mar
Sales Units 1	xxx	xxx	xxx
Selling Price Per Unit (Rs) 2	x	x	x
Sales Revenue 1 x 2	xxx	xxx	xxx

Zone wise

Description	Period		
	Kandy	Galle	Colombo
Sales Units 1	xxx	xxx	xxx
Selling Price Per Unit (Rs) 2	x	x	x
Sales Revenue 1 x 2	xxx	xxx	xxx

Example 01

Forecasted sales of PQR Ltd relevant to product A are as follows

Month	Sales Units
January	5,000
February	4,000
March	8,000
April	12,000
May	5,000
June	3,000

Forecasted selling price per unit is Rs. 10/= however it is expected that selling price will increase by 20% during the festival season (March and April)

Required

Prepare the sales budget for 1st 6 Months

2 Production Budget

This is prepared to show the number of units to be produced for a certain future period for each product

This is prepared to show the number of units to be produced for a certain future period for each product

Commonly used formats**Product wise**

Description	Product		
	X	Y	Z
Sales requirement (Units)	XXX	XXX	XXX
Add: Closing Stock	XX	XX	XX
Less: Opening Stock	(XX)	(XX)	(XX)
No. of units to be proceed	XXX	XXX	XXX

Period wise

Description	Product		
	Jan	Feb	Mar
Sales requirement (Units)	XXX	XXX	XXX
Add: Closing Stock	XX	XX	XX
Less: Opening Stock	(XX)	(XX)	(XX)
No. of units to be proceed	XXX	XXX	XXX

Example 02

These types of products are produced and sold by XYZ Ltd. budgeted date for the forthcoming quarter are as follow.

Product	Sales Units	Opening Stock (Units)	Closing (Units)
X	50,000	3,000	4,000
Y	60,000	7,000	5,000
Z	38,000	3,000	5,000

Required

Prepare the production budget for the quarter

Example 03

Production budget where a loss is expected

Assuming that 10% normal loss is expected, prepare the production budget based on the above information

3. Direct material usage budget

This budget is prepared to estimate the material requirement of the production budget.

Commonly used formats

(i) For each direct row material

	Row Material Category			
	M – 01		M – 02	
	Working	Units	Working	Units
Product X (No of units x unit requirement)		xx		xx
Product Y (No of units x unit requirement)		xx		xx
Total material requirement for production		xxx		xxx

(ii) For each period

	Period		
	Jan	Feb	March
Product X (units x requirement per units)	xx	xx	xx
Product Y (units x requires)	xx	xx	xx
Product Z (units x requires)	xx	xx	xx
Total material requirement	xxx	xxx	xxx

Example 04

ABC Ltd produces three types of products called x, y and z using row material "A"

Product	Budgeted production (units)	A material requirement per units
x	9,000	5
y	15,000	3
z	24,000	7

Prepare direct material usage budget.

4. Direct Material purchase budget

This presents the number of units to be purchased from each row material for certain future period.

	Row Material	
	RM 01	RM 02
Row material usage (units)	xxx	xxx
+ closing storage of row material	xx	xx
(-) opening stock of row material	xxx	xxx
Purchasing requirement (units)	(xx)	(xx)
Unit price per unit	xxx	xxx
Value of purchase (Rs)	xx	xx
	xxx	xxx

Example 05

Forecasted information of ABC Ltd for the next quarter are as follows.

Product	Direct Material Usage	
	M1	M2
x	50,000	40,000
y	65,000	36,000
	115,000	76,000

Row Material	Opening Stock (Units)	Closing Stock (Units)
--------------	-----------------------	-----------------------

M1	10,000	18,000
M2	12,000	14,000

Unit price per unit

M1 - 15

M2 - 9

Prepare the direct material purchase budget for the next quarter.

Example 06

If the material required for x and y products are as follows.

	Requirement per unit	
	x	y
Material 01	10	7
Material 02	5	6
Expected production	2000	1000

and

If the estimated material quantities and prices of the above items are as follows

Row Material	Opening Stock (Units)	Closing Stock (Units)
Estimated opening stock (kg)	4,000	1,800
Estimated closing stock (kg)	5,000	3,600
Price of a kilogram (Rs)	30	20

Prepare

- (i) Direct material usage budget
- (ii) Direct material purchase budget

ANSWER

(i) Direct Material usage budget

	RM – 01		RM – 02	
	Working	Units	Working	Units
Expected production x	1000		2000	
Row material requirement per unit	10		5	
Material required for product x	2000 x 10	20,000	20000 x 5	10,000
Expected production y	1000		1000	
Row material requirement	7		6	
Material required for product y	1000 x 7	7,000	1000 x 6	6,000
Usage of R/M		27,000		16,000

(ii) Direct material purchase budget

	Row Material	
	RM 01	RM 02
Row material usage (units)	27,000	16,000
+ closing storage of row material	5,000	3,600
	32,000	19,600
(-) opening stock of row material	(4,000)	(1,800)
Purchasing requirement (units)	28,000	17,800
Unit price per unit	30	20
Value of purchase	840,000	356,000
Total cost of RM purchase		1,19600



Example 07

Assuming that there is a trade discount of 5% in the case of example 05, prepare the purchase budget using the same information.

	M 1	M 2
Raw material usage (units)		
Product x	50,000	40,000
Product y	65,000	36,000
	115,000	76,000
+ closing storage of raw material	18,000	14,000
	133,000	90,000
(-) opening stock of raw material	(10,000)	(12,000)
Purchase of raw material	123,000	78,000
Unit price per unit	15	9
Marked price of raw material	184,500	702,000
(-) 5% trade discount	(92,250)	(35,100)
Value of purchases	1,752,750	666,900
Total cost of RM purchase		2,419,650

5. Direct Labour Budget

This shows the direct labour requirement for a certain future period.

Common Format

Production requirement (units)	xxx
Direct labour requirement per unit (hours)	x
Total direct labour hours requirement	xxx
Direct labour rate per hour	xx
Direct labour cost (Rs.)	xxxx

Example 08

ABC Ltd intends to produce two products called product x and y. Budgeted production for the coming quarter is as follows.

x 25000 units

y 20000 units

Direct labour requirement per unit

x - 3.5 hours

y - 2.75 hours

Labour rate per hour Rs. 35/-

Prepare direct labour budget for the coming quarter.

	Product x	Product y
Budgeted production (units)	25,000	20,000
Direct labour requirement per unit (hours)	3.5	2.75
Total direct labour hours requirement	87,500	55,000
Direct labour rate per hour	35	35
Direct labour cost (Rs.)	3,062,500	1,925,000
		4,987,500

Example 09

PQR Ltd intends to produce two types of products called product A and B.

Budgeted production is as follows.

Product	Budgeted production
A	10,000
B	20,000

Two types of direct labour are required for the above products. Per unit requirement are as follows.

Product	Skilled	Semi skilled
A	5 hours	3 hours
B	2 hours	4 hours

Labour rate per hour

	Rate per hour
Skilled- labour	100
Semi- skilled labour	60

Prepare direct labour budget.

	Skilled Labour		Semi-skilled Labour	
Budgeted production - A	10,000		10,000	
Direct labour requirement	5h		3h	
Direct labour required for A	10,000 x 5	50,000	10,000 x 3	30,000
Budgeted production – B	20,000		20,000	

Direct labour requirement	2h		4h	
Direct labour required for B	20,000 x 2	40,000	20,000 x 4	80,000
Total direct labour requirement		90,000		110,000
Labour rate per hour		100		60
Direct labour cost		9,000,00		6,600,000
Total direct labour cost				15,600,000

6. Prime cost budget

This shows the prime cost of the budgeted to production for a certain future period.

Prime cost contains Direct Material, Direct Labour and Direct Expenses.

Format of a prime cost budget

Production requirement (units)	xxx
Prime cost per unit (Rs)	xx
Total budgeted prime cost (Rs)	xxxx

Example 10

Budget information of XY Ltd for the future quarter is as follows.

			Requirement of resources to to produce one unit of X
Material A			3 Kg
B			4 Kg
Direct Labour – Trained			5 hours
Untrained			6 hours
			Rs.
Price of a material unit	– A	-	10
	– B	-	15
Direct labour rate per hour – Trained			20
		Untrained	15

Company intends to produce 5000 units of product X for the next quarter.

Prepare prime cost budget.

7. Production overhead budget

This shows the production overhead which should be absorbed to the budgeted production. Production unit basis, direct labour hours basis etc X can be used for this absorption process.

Common Format

Budgeted production (units)	xxx
Production overhead absorption per unit	xx
Total production overhead (Rs)	xxx

Example 11

Lakmal Ltd intends to produce three products as x, y and z for the future quarter.

Budgeted production	Units
x	16,000
y	15,000
z	25,000

Two types of direct labour categories are required for the production and labour required per unit are as follows.

Product	Trained (h)	Untrained (h)
X	4.75	4
Y	4	5
Z	3	2

Budgeted production overhead of the company is Rs. 800,000. Budgeted number of direct labour hours is 400,000.

Prepare the production overhead budget under the following situations.

- 1) If the production overhead is absorbed based on production units
- 2) If the production overhead is absorbed based on direct labour hours basis.

2. Production cost budget

This shows total cost of production for the budgeted production relevant for a future period.

Production cost budget can be prepared in two main methods.

- 1) By multiplying unit production cost by production requirement.
- 2) By multiplying the total of direct material direct labour and productions overhead by production requirement.

Example – 12

Budgeted production of ABC Ltd for the next 6 months period is 40,000 units cost per unit is as follows.

Direct material Rs.30

Direct labour RS.18

Production overhead Rs.15

Prepare the production cost budget for the next 6 months.

ANSWER**Production cost budget**

Production requirement	40,000
Production cost per unit (w-1)	63
Total production cost	252,000

Direct material	30
Direct labour	18
Production overhead	15
	<hr/>
Production cost per unit	63
	<hr/>

Example – 13

Thushara Ltd produces two types of products, A and B Budgeted information for the next quarter is as follows.

A - 2500 Units

B - 2800 Units

Standard material and labour requirement per unit are as follows.

Product	Direct material (kg)		Direct Labour (h)	
	M ₁	M ₂	L ₁	L ₂
A	6	3	4	3
B	5	4	2	4

Material price per kilogram

M₁ Rs.6

M₂ Rs.4

Labour rate per hour

L₁ Rs.30

L₂ Rs.20

Budgeted labour hours and production overhead are respectively as Rs. 3000,000 and Rs. 1500,000.

Prepare production cost budget for the next quarter.

Example – 14

Vista Electronica Ltd, produces two types of electric coils. Financial controller has collected the following information.

Forecasted sales for the next year.

Product	No. of units	Price
Light coil	60000	Rs. 650
Heavy coil	40000	Rs. 950

Raw material	Light coil	Heavy coil
--------------	------------	------------

Steel sheets	4kg	5kg
Copper wire	2kg	3kg
Alat form	-	01 unit

Direct Labour requirement per unit and rate

Product	Hours per unit	Rate per hour
Light coil	2	Rs. 150
Heavy coil	3	Rs. 200

Finished products stock levels (Expected) (units)

Product	Opening stock	Closing stock
Light coil	20,000	25,000
Heavy coil	8,000	9,000

3. Production overhead

Overhead cost item	Overhead absorption rate
Purchase and material control	Rs. 250 per copper wire or steel purchased
Depreciation and supervision	Rs. 40 for each coil produced
Shipping	Rs. 10 per direct labour hour
Other production over head	Rs. 30 per direct labour hour

Required

1. Sales Budget (in, Rs)
2. Production budget (in units)
3. Raw material purchase budget (in units)
4. Raw material purchase budget (in rupees)
5. Direct labour budget (in rupees)
6. Production overhead budget (in rupees)

4. Sales and distribution and administration budget

Costs to be incurred for the sales promotions and distributions with the considering budget period is presented by sales distribution overhead budget.

Administration overhead budget reveals the administration overhead to be incurred for the operation which are not related to the production.

Both budgets mentioned above are mostly prepared at once to their interconnection with sales.

Cash Budget Cash budget represents a descriptive estimation of cash inflows and cash outflows of the budget period or any other specified period. Cash budget can be treated as the main functional budget prepared by can organization.

Model structure of a cash budget

	January	February	March	Total (quarter)
Receipts	XX	XX	XX	XX
Cash sales	XX	XX	XX	XX
Collection from citers	XX	XX	XX	XX
Disposal of fused as sets	XX	XX	XX	XX
Investment income	XX	XX	XX	XX
dividend income	XX	XX	XX	XX
Other receipts	XX	XX	XX	XX
Total receipts	XXX	XXX	XXX	XXX

payment				
Cash purchases	XX	XX	XX	XX
Payment to creditors	XX	XX	XX	XX
Salaries and wagon	XX	XX	XX	XX
Expenses	XX	XX	XX	XX
Purchases of fly	XX	XX	XX	XX
Loan repayment	XX	XX	XX	XX
Other payments	XX	XX	XX	XX
Total payment	XXX	XXX	XXX	XXX
Net receipt net payment	XXX	XXX	XXX	XXX
+ opening cash balance	XXX	XXX	XXX	XXX
Closing cash balance	XXX	XXX	XXX	XXX

Example -15

Following estimated information has been provided by X Ltd for the

Month	Sales (Rs)	Raw material Purchase (Rs)	Salaries	Overhead cost	
				Production (Rs)	Administration and selling and dist.
June	6000	3600	1300	450	320
July	6500	4000	1500	450	320
August	7000	4000	1500	500	350

September	7500	4500	1500	600	350
October	8000	4600	1600	600	400
November	8500	5000	1800	700	400
December	9000	5200	2000	700	450

Additional Information

- 1) Debtors are entitled a three months credit period. 10% of sales are on cash basis. In general, 50% of debtors will settled on due date subject to the credit period. Balances 50% will be settled in the following month after the due month.
- 2) Creditors have given a two months credit period for raw material supplied.
- 3) Salaries are paid one month in arrears. 50% of monthly overhead cost are paid in the same month and the balance is paid in the following month.
- 4) It is expected that the cash and bank balance as at cost of October is Rs 7000/=
- 5) other relevant information.
 - (a) It is expected to purchase a machine at a cost of Rs. 48,000.00 in the month of August on credit basis. It should be settled in equal monthly installments of Rs.1,000.00, commencing from 01st October.
 - (b) 5% dividend should be paid on 1st November on the preference shares of Rs.100,000.00.
 - (c) Expected dividend which should be received on 31st December on the investment is Rs.50000.00
 - (d) Income tax payment in the month of December is Rs.1000.00

Required

To prepare the cash budget for the three months' period ending on 31st December.

Budgetary Control

Budget establishing practice of comparing the actual result with the expected result and recognizing the responsibilities of each individual managers can be considered as the "Budgetary Control".

Objectives of a budgetary control system

1. To compel planning
2. To co-ordinate activities
3. To communicate activities
4. To motivate managers
5. To establish a system of control
6. To evaluate performance
7. To delegate authority to budget holders
8. To ensure achievement of the management's objectives

Advantages of budgetary control

1. It helps to reduce the cost
2. It provides the guidelines to establish plans and organizational policies to the management
3. It facilitates for an effective co-ordinate among various departments and activities by establishing targets and limitations
4. It can be used to profit maximization, cost controlling and optimum utilization of resources.
5. Possibility to use for the performance evaluation of various budget centers
6. It helps to the management for an effective and economic control
7. Ability to take corrective measures

Disadvantages/limitations of budgetary control

1. Budgetary plan always depends upon estimates and projections
2. Occurrence of managers and subordinates regarding budget
3. Attitudes of managers and subordinates regarding budget
4. It is not a management and it is just a management tool
5. It may be a costly and time-wasting activity

Operating statements / Budgetary control statements

By preparing an operating statement we can show fixed and flexible budgets with actual results and variances.

Fixed budget

Budget prepared for a single level of activity is known as "Fixed budget" following features can be seen in a fixed budget.

1. Even though the budget is prepared based on expected production and sales volume, adjustments will not be made if the actual production & sales volume is different from the budget.
2. When the business has achieved an actual production and sales volume as per the budget during a certain budget period, adjustments will not be made by considering the new activity level.

Therefore, fixed budget may be useful only if the business environment is comparatively fixed and able to predict the future with a reasonable certainty.

Flexible budget

A flexible budget supports management for a valid practical comparison. A flexible budget can be identified as a controlling budget prepared for two or more activity levels.

Flexible budget is also known as "Dynamic budget or expense control budget". The fundamental theory of this is organization quickly changing manner and its never constant nature. It provides a trustworthy base for comparison because it automatically adapts for actual level or change.

A task to be done before preparing the flexible is identifying what costs are variable and what costs are fixed?

Variable Costs should be adjusted to the relevant activity level and fixed Costs should not be changed regardless of the activity level.

Example 16

PQR limited produces polyethene garbage bags to dispose waste materials. Budgeted sales for the last year was estimated as 10 million units and price was estimated as Rs.5 each. Unit variable cost was estimated Rs. 2. All the other costs were fixed and estimated annual fixed cost was Rs. 10 million. Actual sales for the last year was 11 million units and unit selling price, unit variable cost and total fixed cost were equal to the budgeted values.

Required

Prepare an Operating Statement comparing budgeted information with actual values.

Example 17

BCD Ltd. produces the product 2. Budgeted sales for the last year was 5 million units at Rs 50 each unit variable cost was estimated as Rs. 30 Budgeted fixed cost was Rs. 25 Mn per annum. Actual sales for the last year was 6 million units however Actual selling price per unit and variable cost per unit were respectively Rs 48 and Rs 32. Actual fixed cost for the last year was Rs. 20Mn.

You are required to

Prepare a flexible budget operating statement comparing budgeted values with actual values.

Example 18

Sasindu Company manufactures and sells the product R. Budgeted and actual information for the last month were as follows.

Consider that Company uses just in time (JIT) approach. Hence, Opening and closing stocks are negligible.

	Budget	Actual	Variance
Sales quantity (millions)	10	11	1
Sales value	250	255	5
Cost			
Direct materials	45	48.6	(3.6)
Direct labour	60	71.4	(11.4)
Variable production overheads	30	40	(10)
Fixed production overheads	35	38	(3)
Selling and administration overhead	35	34	1
Total cost	205	232	(27)
Profit / (loss)	45	23	(22)

All sales and administration overheads are fixed.

You are required to prepare a flexible operational statement in a marginal costing format.

Past papers (operating statements)

1. 2020 January Question 06 – (10 marks)
2. 2019 January Question 06 – (10 marks)
3. 2018 July Question 07 – (10 marks)
4. 2017 January Question 09 – (15 marks)
5. 2016 July Question 06 – (10 marks)
6. 2016 January Question 05 – (10 marks)

Budgetary planning approaches under uncertainty

1. What If analysis

What if analysis is a kind of sensitivity analysis and it facilitates the re calculation of effect of changes in one or few data values. Through this, effect for the end results can be seen by changing each input value solely or collectively.

This is a brainstorming technique used to decide effect of changing assumptions on projected performance that estimations are based on. This is frequently used in comparing each situation under dynamic scenarios and its possible effects.

This analysis facilitates the understanding of possible changes before it happens.

The way that different changes are affecting on different side screens of the organization can be seen using historic business data of the organization.

01) Developing what if questions

What if questions can be built up using existing documents and knowledge of the inspecting teams. Following situations should be covered up using these questions.

- Inability to follow procedures or incorrectly followed procedures.
- Procedures being incorrect or not using latest procedures.
- System situations being messed up
- Failure of utilities
- Weather conditions, fires or such external effects
- Failures of few machines simultaneously or collection of such situations

02) Determining the answers

- Team should answer on what happens with the occurrence of relevant situation once they are done with ensuring the development of what if questions.

03) Assessing the risk and making recommendations

- After considering the answers for what if questions, next task is to determine the possibility and the strength of the occurrence. Inspecting team should determine the risk and acceptance of it.

Common what if analysis methods

01) What if tools built in Microsoft Excel

What if analysis can be easily done using the 'what if' tools built in Microsoft Excel. Scenarios, Data tables and Goal seek are 03 methods coming with Excel. An input package by scenarios and data tables is used and determination of results is done. Even though data tables can be used only for one or two variables, here different values can be used for those variables. Here at one situation, multiple variables can be seen.

Goal seeking is getting different from scenarios, data tables and in that case a result is considered and possible inputs values to obtain that result is decided.

- 02) Using brainstorming techniques which have the ability to detect the factors affecting the results of activities. This is also related in developing what if analysis questions in assessing how different scenarios are affecting on an activity.
- 03) Using modeling and simulating techniques. (Frequently used in Testing computer systems and scenarios)

Advantages of what if analysis

- 01) It reduces the risk
 - This offers the opportunity for organizations to predict the results of decisions by reducing the risk related to decision making.
 - Example: This derangement can be used by a manager with the purpose of analyzing whether the difference is favorable or adverse for the organization in a situation where prices are to be increased by 10%.
- 02) It reduces the time consumed in decision making
 - This facilitates the quick investigation of different scenarios with the use of real time data which are directly obtained by data bases. There is no any requirement to collect data or to obtain reports for different scenarios. This gives the opportunity for users to engage in quick decision making based on recently updated data.
- 03) Develops the decision-making process
 - This analysis predicts the decisions which can be either favorable or adverse to an organization. Further, it pays attention towards previously neglected differences which can be possibly averse to an organization too.
- 04) It can be making related to many effective processes
- 05) Comparatively it is a cost beneficial method

Limitations of what if analysis

- 01) It requires a team
- 02) It is a must to keep trust on experiences of team members in developing and solving what if questions. In a case where the team failed to content all the 'what if' questions this technique would be incomplete.
- 03) Subjective nature of the analysis

Example:

What if analysis can be used in preparing two budget scenarios where a worst case and a best possible cases are discussed? It predicts a specific income level at different situations.

Example:

Imagine a situation where you need to predict the profit margin of a launching product that you are expecting to issue to the market. Even though the fixed cost is already identified, variable cost will depend on few factors which are not interpreted yet.

Expected profit margin is given by what if analysis through consideration of known factors (fixed cost at the moment) and estimation of unknown factors. (Raw material cost, variable costs and sales of the product)

This might be very useful justification of further investments by determining whether new products are possesses a sufficient profit margin.

2. Three tier approach

Three tier approach is a form of scenario analysis. Preparing three budgets is the alternative method which can be used where organization performance is depending on unpredictable future scenarios.

- 01) A budget for most likely outcome
- 02) A budget for worst possible outcome/pessimistic budget
- 03) A budget for best possible outcome/optimistic budget/stretch budget

Although the management can consider most likely budget, even the worst possible outcome can be predicted by it.

A budget for most likely outcome

In the preparation of a most likely budget, medium/normal values are selected for costs and incomes results also get medium/normal values. If it goes forward in a normal way, expected results can be seen.

Following factors are considered in this kind of a budget,

- 01) Trusted resources
- 02) Essential duties
- 03) Essential supportive services
- 04) Maximum dedication of the organization

A budget for worst possible outcome/pessimistic budget

All costs are kept at maximum expected value and all expected incomes are maintained at minimum expected value in preparation of a budget for worst possible outcome.

Following factors are considered in this kind of a budget.

- 01) Losing of trusted resources
- 02) What resources are to be cut down? And how to restore resources
- 03) How to refill the shortfall?
- 04) Increment of costs (only if relevant)
- 05) Increasing attempts for financing

A budget for the best possible outcome / optimistic budget / stretch budget

All costs are kept at minimum expected values and all expected incomes are maintained at maximum expected values in preparation of a budget for best possible outcome.

Following factors are considered in this kind of a budget. (Same as previous)

- 01) Losing of trusted resources
- 02) What resources are to be cut down? And how to restore resources
- 03) How to refill the shortfall?
- 04) Increment of costs (only if relevant)
- 05) Increasing attempts for financing

Advantages of three tier approach

- 01) It prevents a weak investment
 - An organization can do a selection consciously because this analysis considers the best and worst possible outcomes.
- 02) It reduces the risk
- 03) This assists the organization to maintain the comfortable risk level
 - It can decide whether they can bear the risk of the worst case once they are done with predictions. It provides an idea for the investors to analyze whether the investment is worth enough for the time and money that they have invested by engaging in this kind of an analysis and looking over the results of it. Usually, normal scenario and best scenario can be easily managed if they possess the ability to manage the worst. It comes to an ultimate level which can be easily borne by an investor no matter what the predicted result is.
- 04) It uses corporate strategies
 - This approach helps an organization to be proactive instead of being reactive. By this, it can at least minimize the negative results of effect coming through the industry which the organization is belonging to or within the organization itself. These predictions cannot be considered as guarantees. But the organization can be well informed and can be worked with a sound mentality.

Limitations of three tier approach

- 01) Consideration of only selected results by neglecting thousands of other possible results.
- 02) It weighs all the outcomes in a same way. It does not attempt to assess the percentages/possibilities.
- 03) It neglects the interdependence of the effect of different inputs to the final outcome and reducing the accuracy by unnecessarily simplifying the format.

Past papers –three tier approach

2019 - July question no.06

2018 - January question no.05

2017 -July question no.03