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Budgeting for Planning & Control

Chartered Accountancy
Corporate Level
Advanced Management Accounting (AMA)

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BUDGETING FOR PLANNING AND CONTROL

1

2

Budgeting

- Purpose and conflict in budgeting
- Alternative approach in budgeting
- Non-financial indicators
- Traditional budgeting Vs Beyond budgeting
- Big data mining for forecasting

3

Budget, Forecast and Standard

- A budget is a quantitative plan prepared for a specific future time period. It is normally expressed in financial terms and prepared for one year.
- A forecast is an estimated outcome of the future by examining the historical data.
- A *standard* usually refers to a projected amount *per unit* of product, *per unit* of input (such as direct materials, factory overhead), or *per unit* of output.

4

Purpose of budgeting

- **Planning -** A budgeting process forces a business to look to the future. This is essential for survival since it stops management from relying on ad hoc or poorly coordinated planning.
- **Control -** Actual results are compared against the budget and action is taken as appropriate.
- **Communication -** The budget is a formal communication channel that allows junior and senior managers to converse.
- **Co-ordination -** The budget allows co-ordination of all parts of the business towards a common corporate goal.
- **Evaluation -** Responsibility accounting divides the organization into budget centers, each of which has a manager who is responsible for its performance. The budget may be used to evaluate the actions of a manager within the business in terms of the costs and revenues over which they have control.
- **Motivation -** The budget may be used as a target for managers to aim for. Reward should be given for operating within or under budgeted levels of expenditure. This acts as a motivator for managers.
- **Authorization -** The budget acts as a formal method of authorization to a manager for expenditure, hiring staff and the pursuit of plans contained within the budget.
- **Delegation -** Managers may be involved in setting the budget. Extra responsibility may motivate the managers. Management involvement may also result in more realistic targets.

Conflicts in budgeting

5

Type of conflict	Description	Solution
Company Vs division	The company wished to increase shareholder wealth. This should involve the use of NPV, but divisions are assessed on accounting target such as profit. Similarly shareholder wealth is determined by the long term but divisions are set short term targets. Managers reject the projects that dilutes the divisional performance, even though they beat company targets.	Companies insist to use NPV for the pproject evaluation and then still impose accounting targets too. Give managers share option plan and then they will focus on the shareholder wealth. Use performance measures that encourage the divisions to accept project which meet or exceed company target. Ex. Residual income.
Division Vs division	Division may compete for limited financial resources.	Prioritizing (using zero-based budgeting.), Negotiation and compromise.
Short-termism	Managers cut R&D to hit short term targets but erode long term competencies.	Use more non-financial indicators that focus on key long term issues such as quality.
Individualism	The risk of budgetary slack. This is when the managers are participate in target setting and as a result make the budget that is too easy to achive.	Great scrutiny of budget and train the managers.

Traditional Budgetary Systems

6

- A budget is a quantified plan of action for a forthcoming accounting period. A budget can be set from the top down (imposed budget) or from the bottom up (participatory budget).
- The traditional approach to budgeting, known as incremental budgeting, bases the budget on the current year's results plus an extra amount for estimated growth or inflation next year. It encourages slack and wasteful spending to creep into budgets.

7

Criticisms of traditional budgeting

- Encourage rigid planning and a lack of flexibility. This may not be appropriate in a fast moving business environment.
- are time consuming.
- encourage managers and employees to meet only the lowest target rather than attempting to beat the target set (this is inconsistent with a TQM approach).
- encourage managers and employees to achieve the budget even if this results in undesirable action.
- encourage managers and employees to spend what is in the budget, even if it is not necessary, to guard against next year's budget.
- reinforce the barriers between departments rather than encourage knowledge sharing.
- are seen as a mechanism for top-down control by senior management but organizations should be empowering individuals on the front-line.
- ignore key drivers of shareholder value by focusing on short term financial performance.
- produced inadequate variance reports leaving the 'how' and 'what' unanswered.

8

Approach to budgeting

There are a number of different budgetary systems:

- Top down vs bottom up budgeting
- Incremental budgeting
- Zero-based budgeting (ZBB)
- Rolling budgets
- Activity-based budgeting
- Beyond budgeting
- Feed-forward control

9

Top down vs bottom up budgeting

- A top down (Imposed) budget is a budget that is set without allowing the ultimate budget holder to have the opportunity to participate in the budgeting process.
- A bottom up (Participative) budget is a system of budgeting in which budget holders have the opportunity to participate in setting their own budgets. Also called participative budgeting.

10

Top down vs bottom up budgeting

Advantages of bottom up budgets	**Disadvantages of bottom up budgets**
Increase motivation to the ownership of the budget.	Senior manager may resent lost of control.
Should contain better information since employees are most familiar with the department set the budget.	Dysfunctional behaviour: Budget may not be inline with corporate objective as a managers lack a strategic perspective and will focus on divisional concern.
Increase management understanding and commitment.	Bad decision from inexperience managers.
Better communication between departments.	Budget preparation is slow and dispute can arise.
Senior management can concentrate on strategies.	Budgetary slack: managers set targets which are too easy to achieve.

11

Incremental budgeting

- An incremental budget starts with the previous period's budget or actual results and adds (or subtracts) an incremental amount to cover **inflation** and other **known changes** (Ex higher electricity cost due to new machine purchase).
- It is suitable for stable businesses, where costs are not expected to change significantly. There should be good cost control and limited discretionary costs.

12

Incremental budgeting

Advantages of incremental budgets	Disadvantages of incremental budgets
Quickest and easiest method	Build in previous problem and inefficiency.
Suitable if the organizaton is stable and historic figures are acceptable since only the inctemental to be adjusted.	Uneconomic activities may be continued. Ex. The business may continue to produce a component in-house when it might be chaper to outsource.
	Manager may spend unnecessary to use up their budgeted expenditure allowance this year, thus ensuring they get the same (or larger) budget next year.

13

Zero Based Budgeting

- This method of budgeting that requires each cost element to be specifically justified, as though the activities to which the budget relates were being undertaken for the first time. Without approval, the budget allowance is zero.

It is suitable for:

- allocating resources in areas were spend is discretionary, i.e. non-essential. For example, research and development, advertising and training.
- public sector organizations such as local authorities.

14

Implementation of ZBB

There are four distinct stages in the implementation of ZBB:

- Managers should specify, for their responsibility centers, those activities that can be individually evaluated.
- Each of the individual activities is then described in a decision package. The decision package should state the costs and revenues expected from the given activity. It should be drawn up in such a way that the package can be evaluated and ranked against other packages.
- Each decision package is evaluated and ranked usually using cost/benefit analysis.
- The resources are then allocated to the various packages.

15

Implementation of ZBB

Decision package

A decision package is a document that:

- analyses the cost of the activity (costs may be built up from a zero base, but costing information can be obtained from historical records or last year's budget)
- states the purpose of the activity
- identifies alternative methods of achieving the same purpose
- assesses the consequence of not doing the activity at all, or performing the activity at a different level
- establishes measures of performance for the activity.

16

Zero Based Budgeting

Advantages of ZBB	**Disadvantages of ZBB**
Inefficient or obsolete operations can be identified and discontinued.	It emphasis short term benefits to the detriment of lonf term goals.
ZBB increase the staff involvement in all levels since lot more information and work is required to complete the budget.	The budgeting process may become too rigid and the organization may not be able to react the unforseen opportunities and thereats.
It responds to change in the business environment.	The management skills required may not be present.
Knowledge and the understanding of the cost behavior patterns of the organization will be enahanced.	Managers may feel demotivated due to the large amount of time spent on the budgeting process.
Resources should be allocated efficiently and economically.	Ranking can be difficult for different type of activities or where the benefits are qualitative in nature.

17

Rolling budgets

- A budget (usually annual) kept continuously up to date by adding another accounting period (e.g. month or quarter) when the earliest accounting period has expired.
- Suitable if:
  - accurate forecasts cannot be made. For example, in a fast moving environment.
  - or for any area of business that needs tight control.

18

Rolling budget preparation

A typical rolling budget might be prepared as follows:

- A budget is prepared for the coming year (say January - December) broken down into suitable, say monthly, control periods.
- At the end of the first control period (31 January) a comparison is made of that period's results against the budget. The conclusions drawn from this analysis are used to update the budgets for the remaining control periods and to add a budget for a further one months, so that the company once again has budgets available for the coming year (this time February - January).
- The planning process is repeated at the end of each month control period.

19

Activity based budgeting (ABB)

- ABB is defined as: 'a method of budgeting based on an activity framework and utilizing cost driver data in the budget-setting and variance feedback processes'.
- Or, put more simply, preparing budgets using overhead costs from activity based costing methodology.
- ABB involves defining the activities that underlie the financial figures in each function and using the level of activity to decide how much resource should be allocated, how well it is being managed and to explain variances from budget.

20

Activity-based budgeting process

- **Step 1**: Group production overheads into activities (cost pools), according to how they are driven.
- **Step 2**: Identify cost drivers for each activity, i.e. what causes the activity costs to be incurred.
- **Step 3**: Calculate an overhead absorption rate (OAR) for each activity.
- **Step 4:** Absorb the activity costs into the product.
- **Step 5**: Calculate the full production cost and/or the profit or loss.

21

Pros & Cons of ABB

Advantages	Disadvantages
It draws attention to the costs of 'overhead activities' which can be a large proportion of total operating costs.	A considerable amount of time and effort might be needed to establish the key activities and their cost drivers.
It recognizes that it is activities which drive costs. If we can control the causes (drivers) of costs, then costs should be better managed and understood.	It may be difficult to identify clear individual responsibilities for activities.
ABB can provide useful information in a total quality management (TQM) environment, by relating the cost of an activity to the level of service provided.	It could be argued that in the short-term many overhead costs are not controllable and do not vary directly with changes in the volume of activity for the cost driver. The only cost variances to report would be fixed overhead expenditure variances for each activity.

22

Dealing with uncertainty in budgeting

- Budgets are open to uncertainty. For example, non-controllable factors such as a recession or a change in prices charged by suppliers will contribute to uncertainty in the budget setting process.
- There are several techniques available to help deal with uncertainty. These include:

- **Flexible budgets** : these are budgets which, by recognizing different cost behavior patterns, are designed to change as the volume of activity changes. Flexible budgets are prepared under marginal costing principles, and so mixed costs are split into their fixed and variable components. This is useful at the control stage : it is necessary to compare actual results to the actual level of activity achieved against the results that should have been expected at this level of activity - which are shown by the flexible budget (more on next chapter).
- **Rolling budgets**: the budget is updated regularly and, as a result, uncertainty is reduced.
- **Sensitivity analysis**: variables can be changed one at a time and a large number of budgets produced. For example, what would happen if the actual sales volume was only 75% of the budgeted amount?
- **Simulation**: similar to sensitivity analysis but it is possible to change more than one variable at a time.

23

Budgetary Control System

- A **budget centre** is a section of an entity for which control may be exercised through budgets.
- **Responsibility accounting** is a system of accounting that segregates revenue and costs into areas of personal responsibility in order to monitor and assess the performance of each part of an organization.
- **Controllable costs** are those which can be influenced by the budget holder. Uncontrollable costs cannot be so influenced.
- **A hierarchy of budget centers -** If the organization is quite large a hierarchy is needed. Subsidiary companies, departments and work sections might be budget centers. Budgets of each section would then be consolidated into a departmental budget, departmental budgets in turn would be consolidated into the subsidiary's budget and the budgets of each subsidiary would be combined into a **master budget for the group as a whole**.

24

Controllable and Uncontrollable costs

Variable cost	Controllable because managers can influence the efficiency with which resources are used, even if they cannot do anything to raise or lower price levels.
	A cost which is not controllable by a junior manager might be controllable by a senior manager. Ex. Overtime, replace with hiring outside
	A cost which is not controllable by a manager in one department may be controllable by a manager in another department (dual responsibility) . Ex. Increase in material cost can be controlled either by production or purchasing manager.
Committed fixed cost	These costs (depreciation, rent, administration salaries) are largely non-controllable in the short term because they have been committed by longer-term decisions affecting longer-term needs.
Discretionary fixed costs	Discretionary fixed costs, such as advertising and research and development costs, are incurred as a result of a top management decision, but could be raised or lowered at fairly short notice (irrespective of the actual volume of production and sales).
Apportioned overhead cost	Managers should only be held accountable for costs over which they have some influence.

25

Budgetary control and flexible budgeting

- If the budget holders (managers of budget centers) are to attempt to meet budgets they must receive regular **budgetary control reports** so that they can monitor the budget center's operations and take any necessary control action.
- The **wrong approach** to budgetary control is to compare actual results against a fixed budget.
- **Correct approach** to budgetary control Produce a **flexible budget** using marginal costing techniques.

26

Flexible budgeting

- **A fixed budget** is a budget prepared at a single level of activity.
- **Flexible budget** is a budget prepared with the cost behavior of all cost elements known and classified as either fixed or variable. The budget may be prepared at a number of activity levels and can be 'flexed' or changed to the actual level of activity for budgetary control purposes.

	Fixed Budget	Flex Budget	Actual	Variance
Production and sales **Qty**	10,000	12,000	12,000	-
Material cost	1,500,000	1,800,000	1,908,000	108,000 A

27

Beyond budgeting

- **Beyond budgeting** is a leadership philosophy that relates to an alternative approach to budgeting which should be used instead of traditional annual budgeting.
- Beyond budgeting is one approach to budgeting that tries to resolve the weaknesses and limitations of traditional approaches to budgeting.

Suitability of beyond budgeting

- Industries where there is rapid change in the business environment. Flexible targets will be responsive to change.
- Organizations using management methods such as TQM. Continuous improvement will be key.
- Organizations undergoing radical change, e.g. using business process re-engineering. Budgets may be hard to achieve in such circumstances.

28

Characteristics of beyond budgeting

- Rolling budgets, produced on a quarterly or monthly basis, are suggested as the main alternative to annual budgeting. These are flexible, do not rely on obsolete figures and should result in more timely allocation of resources.
- The rolling forecasts will embrace KPIs based on the balanced scorecard which is linked to organization strategy. Managers' performance measures will be based on this.
- The budget may also incorporate benchmarking linking managers' targets to external benchmarks and not past performance.
- Focus efforts on managing future results and not explaining past performance.
- Allow operational managers to react to the environment.
- Encourage a culture of innovation.

29

Difference between Traditional & Beyond Budgeting

	Traditional Budgeting Management Model	Beyond Budgeting Management Model
Targets & rewards	Incremental targets Fixed incentives	Stretch goals Relative targets & rewards
Planning & controls	Fixed annual plans Variance controls	Continuous planning KPI's & rolling forecasts
Resource & coordination	Pre-allocated resources Central co-ordination	Resources on demand Dynamic coordination
Organisational culture	Central control Focus on managing numbers	Local control of goals/plans Focus on value creation

30

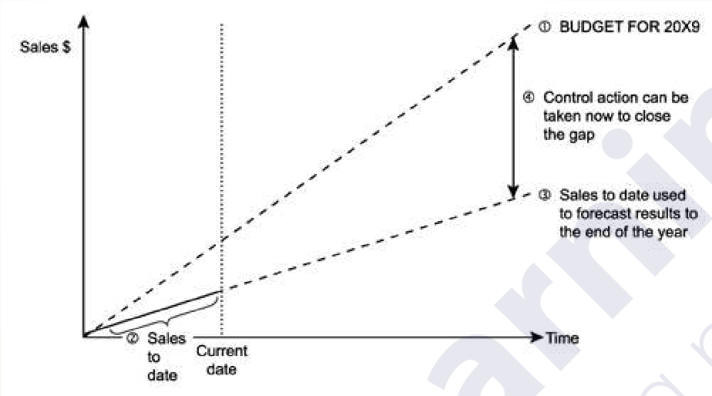
Benefit of beyond budgeting

- Beyond Budgeting results in performance targets based on competitive success. Goals are agreed via reference to external benchmarks as opposed to internally negotiated fixed targets.
- It motivates individuals by giving clear responsibilities and challenges.
- It eliminates some behavioral issues by making rewards team-based.
- Authority is devolved to operational managers who are closer to the action and so can react quickly.
- Operational managers are empowered to deliver key ratios rather than keep to strict budget limits.
- It establishes customer-orientated teams.
- It creates information systems which provide fast and open information throughout the organization.

31

Feedforward control

- A feed-forward control system operates by comparing budgeted results against a forecast. Control action is triggered by differences between budgeted and forecasted results.
- In contrast, a feedback system would simply compare the actual historical results with the budgeted results.



32

Feedback control

- The term 'feedback' is used to describe both the process of reporting back control information to management and the control information itself.
- It is sometimes defined as "comparing actual with plan after the event to learn lessons for the future".
- Feedback will often be negative: targets were missed and this was not what was required. It may, however, be positive: targets were missed, but other targets were hit which were better than those we were aiming at. Negative feedback would result in control action to get back onto target. Positive feedback means that the target should be moved.

33

Feedforward control process

- **Current forecast versus plan. What action must be taken to get back** to the plan, given the differences between the current forecast and the plan? Is any control action worthwhile?
- If **control action is planned, the current forecast will need to be** amended to take account of the effects of the control action and a **revised forecast prepared.**
- The next comparison should then be **revised forecast versus plan to** determine whether the plan is now expected to be achieved.
- A comparison between the **original current forecast and the revised forecast will show what the expected effect of the control action will** be.
- At the **end of a control period, actual results will be analysed and** two comparisons may be made.
  - **Actual results versus the revised forecast.**
  - **Actual results so far in the year versus the plan.**
- At the same time, a **new current forecast should be prepared, and the** cycle of comparisons and control action may begin again.

34

Feedback control process

- Plans and targets are set for the future. These could be long-,
- Plans are put into operation. As a consequence, materials and labour
- Actual results are recorded and analyzed.
- Information about actual results is fed back to the management information is feedback.
- The feedback is used by management to compare actual results with the plan or targets.
- Corrective action taken (Control, do nothing or change the plan)

35

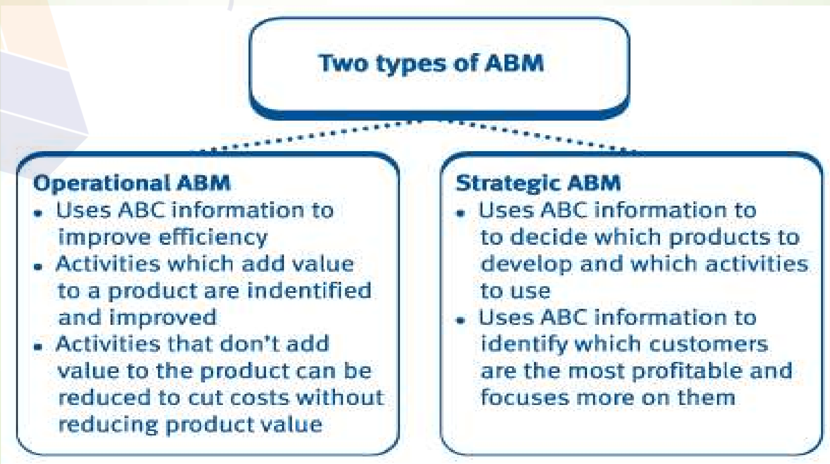
When to revise the original budget

- A budget revision should be allowed if something has happened which is beyond the control of the organization or individual manager and which makes the original budget unsuitable for use in performance management.
- Any adjustment should be approved by senior management, who should look at the issues involved objectively and independently.
- Operating issues are the issues that a budget is attempting to control so they should not be subject to revision.
- However, it can be very difficult to establish what is due to operating problems (controllable) and what is due to planning (uncontrollable).

36

Activity Based Management

- **Activity based management** (ABM) is the use of ABC information for management purposes to improve operational and strategic decisions.



37

Use of ABM

- Re-price products and optimize new product design. Managers can more accurately analyze product profitability by combining activity-based cost data with price information. This can result in the re-pricing or elimination of unprofitable products. This information also is used to accurately estimate new product costs. By understanding cost drivers managers can design new products more efficiently.
- Reduce costs. ABC identifies the components of overhead costs and the drivers of cost variability. Managers can reduce costs by decreasing the cost of an activity or the number of activities per unit.
- Influence strategic and operational planning. Implications for action from an ABM study include target costing, performance measurement for continuous improvement, and resource allocation based on projected demand by product, customer, and facility. ABM can also assist a company in considering a new business opportunity or venture.