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FINANCIAL PLANNING AND PERFORMANCE

UNIT I

An Introduction to Strategic Planning

Strategic planning is the process of documenting and establishing a direction of your small business—by assessing both where you are and where you're going. The strategic plan gives you a place to record your mission, vision, and values, as well as your long-term goals and the action plans you'll use to reach them. A well-written strategic plan can play a pivotal role in your small business's growth and success because it tells you and your employees how best to respond to opportunities and challenges.

Despite the benefits of having a strategic plan in place, a growing number of small business owners aren't focusing on the long-term strategies of their businesses. In a 2018 Constant Contact survey of 1,005 small business owners, 63% said they plan only a year (or less) in advance.

If you're one of these small business owners, it's not too late to think differently. Your future success depends on effective strategic planning. It's a process of looking ahead that should involve your entire business, and the discussions can lead to meaningful changes in your business. Strategic planning consists of analyzing the business and setting realistic goals and objectives. This leads to the creation of a formal document that lays out the company's views and goals for the future.

Benefits of Strategic Planning

The strategic planning process can take some time, but it's beneficial for everyone involved. As the small business owner, you'll have a better idea of the goals and objectives you want to accomplish and a path to do that. For your employees, the process can foster an increase in productivity—contributing to the success of the business.

Communicating Your Strategic Plan

The strategic planning process should involve your employees. Your employees are involved in the day-to-day operations and can provide you with a unique view of the company. Employees can share with you what they think is and isn't working with the business today, which can inform your planning for the future.

In addition to your employees, it's beneficial to reach out to people outside of your company to get their opinions. Like your employees, vendors have a unique perspective on your industry. Talk to them about the business, and get their thoughts on how they think the business landscape can change in the future.

The U.S. Small Business Administration recommends that the strategic planning process be a flexible one. When you meet with your employees and any people outside of the company, remember that the discussions should encourage new ideas and thoughts.

Increase Productivity

Involving your employees in the strategic planning process also means they receive a sense of accountability that can increase productivity. Whether they contributed in the process or were informed of the business's goals and objectives after the strategic plan was created, they'll be more likely to want to help you achieve those targets.

Identifying Strengths and Weaknesses

As part of the strategic planning process, you'll examine and analyze your entire business. You'll take a look at what your business does well and the areas where it still needs to improve. By identifying your business's current strengths and weaknesses, the process gives you and your employees an opportunity to improve in the future and become a durable business by minimizing risks.

Although you may have a good idea about what your business excels at and areas that need to be improved upon, don't forget to involve your employees. They may tell you something you didn't think of.

Setting the Direction of the Business and Fostering a Proactive Business

By the end of the strategic planning process, you and your employees should have a clear direction of where you want the business to go in the future. These discussions and the planning process itself help put the business in the best position to succeed in the future.

Strategic planning gives you and your business time to figure out how to grow over the next few years and how to address new opportunities and challenges. Think about the challenges or issues your business may face in four or five years and plan accordingly, so your business doesn't stumble down the road.

Strategic Planning Misconceptions

There are many strategic planning misconceptions. From not having enough time or thinking it only benefits larger businesses, to fearing you'll put your business on the wrong path, there are a variety of reasons why business owners may be wary of strategic planning. But don't be alarmed; strategic planning can help your business—big or small—and the benefits far outweigh any perceived negatives.

Regardless of the size of your business, a strategic plan is beneficial. Whether you are a small business or a large corporation with hundreds or thousands of employees, strategic planning helps you make sure the company is headed in the right direction.

But how do you know if you're steering the company in the right direction? The beginning phases of strategic planning focus on research and discussions. The decisions you make during strategic planning aren't based on assumptions; they're based on research and information you've gathered while talking with your employees and people outside of your company.

The strategic planning process may seem daunting at first, but when you understand what's involved and how to do it, it's not that complicated. It takes time, but the amount you invest in the process pays off when everyone in your company works toward accomplishing the goals and objectives you've laid out.

The process doesn't stymie creativity either. When you meet with your employees for strategic planning, you're asking everyone to have a discussion and brainstorm ideas. The strategic planning process puts everyone's minds together to think of creative ideas.

If you go through the strategic planning process once, don't think you won't have to do it again. The strategic plan is a living document; it should change over time. It's not uncommon for business owners to create a strategic plan with their employees and rarely—

or never—revisit the document. Reviewing and evaluating your strategic plan regularly will help keep you accountable and on track to achieve your goals and objectives.

What Makes Strategic Planning Successful?

Successful strategic planning involves a **team effort** among you and your employees, as well as among you and your vendors and other outside people. The more you engage your employees with strategic planning, the better they'll understand the strategy you want to have for your business.

Strategic planning also needs to **be flexible**. While it's necessary to have goals and objectives for your business, you also have to be able to adapt to changes. It may take you longer than expected to achieve a particular goal; recognize that this isn't an issue and that you can incorporate changes to your plan to put you in a better position to succeed.

When strategic planning is successful, everyone in your business is on the same page with the business's direction and goals. Each individual understands what makes the business stronger and what needs to be worked on. And it's more likely that each person wants to contribute to the business's growth and success.

When Should Strategic Planning Be Done?

When it comes to strategic planning, you want to start it sooner rather than later. It doesn't necessarily have to be done in the first few days or weeks of the company's life—you may want to be in business for a few months to give yourself a better idea of what is and isn't working.

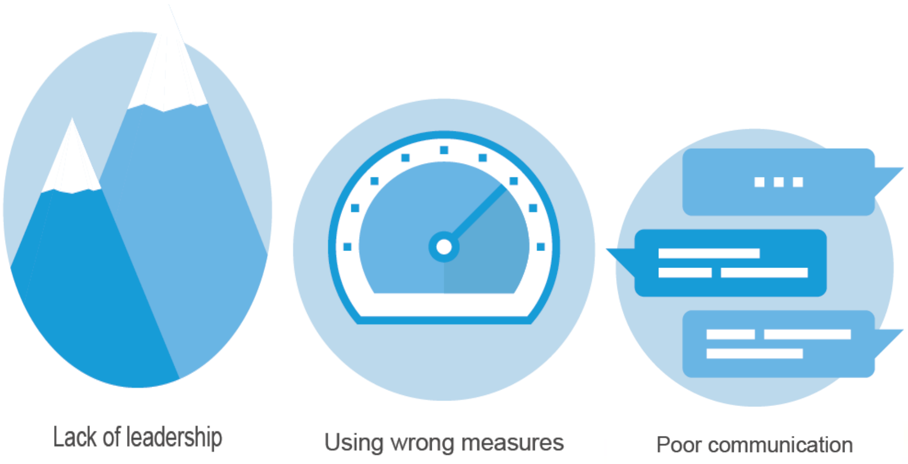
But even if you've owned your business for a long time, it's not too late to get started on strategic planning. It's never a bad time to sit down and think about the current status of your company and where you want to be in the next five to 10 years. When you're ready, gather your team together and schedule regular meetings dedicated to strategic planning.

Where Do Strategic Plans Go Wrong?

Strategic planning is an on-going commitment. Even if you go through an initial round of strategic planning and it leads to the development of your business's first strategic plan, it's still not finished. The plan has to be implemented.

Strategic plans also can go wrong if the goals and objectives you set are unrealistic. Every business owner wants to see their business grow and succeed, but if you set an **overly ambitious growth rate**, it could **discourage you and your employees.**

A successful strategic plan requires commitment. Your entire team needs to be focused on the business and carrying out the strategic plan. If the strategic plan isn't being used regularly or as the foundation of the business, you and your employees can lose sight of the company's direction and goals.



The top three reasons strategy implementation fails:

- Poor Communication
- Lack of Leadership
- Using wrong measuresou can check out our **Affiliates Page**.

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Factors Affecting Strategic Choice

Strategic choice is the mental process of selecting the best or most appropriate strategy from the stock of alternatives that serves the enterprise objectives.

This choice takes place in not thin air but a frame work of reference made up of variety of elements and the choice made is the product of the basic elements that work in the frame work.
Broadly speaking strategic choices are the result of elements like judgement, bargaining and analysis among other things.

This choice may be based on the individual's judgement. When it is a group exercise, choice is made by a group where each member has his own calculations and final selection is by bargain.
It is also possible that choice of strategy is the result of systematic evaluation of alternatives based on facts analysed by experts such analysis is followed by judgement or bargaining or both.

Some of the factors affecting strategic choice are:-

1. Environmental Constraints
2. Dynamism of Market Sector
3. Intra-Organisational Factors
4. Corporate Culture
5. Industry and Cultural Backgrounds
6. Pressures from Stakeholders
7. Impact of Past Strategies
8. Personal Characteristics
9. Value System
10. Managerial Attitude towards Risk
11. Managerial Power Relations
12. Coalition Phenomenon.

13. Time Dimension
14. Information Constraints
15. Competitors' Reactions
16. Styles of Decision Making
17. Governmental Policies 1
18. Critical Success Factors and Distinctive Competencies
19. Execution Capacity and a Few Others.

Factors Affecting Strategic Choice

Factors Affecting Strategic Choice – 19 Important Factors

'Strategic choice' involves selecting from among several alternatives the most appropriate strategy which will best serve the enterprise objectives. To choose a good strategic option, past data, current data, forecasted data, and various other factors should be examined carefully. The selection process becomes a complex job because it is influenced by various factors.

The more important factors influencing the strategic choice are discussed here:

1. Environmental Constraints:

The dynamic elements of environment affect the way in which choice of strategy is made. The survival and prosperity of a firm depend largely on the interaction of the elements of environmentsuch as shareholders, customers, suppliers, competitors, the government and the community. These elements constitute the external constraints. The flexibility in the choice of strategy is often governed by the extent and **degree of the firm's dependence on the environment.**

Pearce and Robinson state, "A major constraint on strategic choice is the power of environmental elements. If a firm is highly dependent on one or more environmental factors, its strategic alternatives and ultimate choice must accommodate this dependence. The greater a firm's external dependence, the lower its range and flexibility in strategic choice."

Well established, large companies in different industries are more powerful vis-a-vis their environments and therefore have greater flexibility in the strategic choice than their counterparts in the respective fields.

Factor # 2. Dynamism of Market Sector:

Glueck has said, "The strategic choice is affected by the relatively volatility of market sector the firm chooses to operate in." Market forces vehemently influence the choice of strategy.

For example, a firm which obtains bulk supply of its raw materials or components in a competitive market will have greater flexibility in its strategic choice than another firm which has to depend for its supplies on an oligopolistic market.

Factor # 3. Intra-Organisational Factors:

Organisational factors also affect the strategic choice. These include organisational mission, strategic intent, goals, organisation's business definition, resources, policies, etc. Besides these factors, organisational strengths, weaknesses, and capability to implement strategic alternatives also affect the strategic choice.

Factor # 4. Corporate Culture

In choosing a strategic alternative, strategy makers must consider pressures from the corporate culture. They must assess a strategy's compatibility with that culture. Every organisation has its own corporate culture. It is made of a set of shared values, beliefs, attitudes, customs, norms, etc. The successful functioning of an organisation depends on 'strategy-culture fit'.

The strategy choice has to be compatible with firm's culture. The strategic choice should not be out of tune with the cultural framework of the firm. The culture has substantial influence on the strategic choice. In case of mismatch between strategic choice and the cultural framework of a company, either one is to be redefined.

The management should decide to:

i. Take a chance on ignoring the culture
ii. Manage around the culture
iii. Try to change the culture to fit the strategy
iv. Change the strategic alternative to fit the culture.

Factor # 5. Industry and Cultural Backgrounds:

Industry and cultural backgrounds affect strategic choice

For example, executives with strong ties within an industry tend to choose strategies commonly used in that industry. Other executives who have come to the firm from another industry and have strong ties outside the industry tend to choose different strategies from what is being currently used in their industry.

Country of origin often affects preferences.

For example, Japanese managers prefer a cost-leadership strategy more than do United States managers. Research reveals that executives from Korea, the U.S., Japan, and German tend to make different strategic choices in similar situations because they use different decision criteria and weights.

Factor # 6. Pressures from Stakeholders:

The attractiveness of a strategic alternative is affected by its perceived compatibility with the key stakeholders in a corporation’s task environment. Creditors want to be paid on time. Unions exert pressure for comparable wage and employment security. Governments and interest groups demand social responsibility. Shareholders want dividends. All these pressures must be given some consideration in the selection of the best alternative.

Stakeholders can be categorized in terms of their (i) interest in the corporation’s activities and (ii) relative power to influence the corporation’s activities. Each stakeholder group can be shown graphically based on its level of interest (from low to high) in a corporation’s activities and on its relative power (from low to high) to influence a corporation’s activities.

Strategic managers should ask four questions to assess the importance of stakeholder concerns in a particular decision:

i. How will this decision affect each stakeholder, especially those given high and medium priority?
ii. How much of what each stakeholder wants is he likely to get under this alternative?
iii. What are the stakeholders likely to do if they don’t get what they want?
iv. What is the probability that they will do it?

Strategy makers should choose strategic alternatives that minimize external pressures and maximize the probability of gaining stakeholder support. Managers may, however, ignore or take some stakeholders for granted—leading to serious problems later. (Thomas Wheelen and David Hunger)

Factor # 7. Impact of Past Strategies:

It has been noticed that the choice of current strategy may be influenced by what type of strategies have been used or followed in the past. Pearce and Robinson have said, “A review of past strategy is the point at which the process of strategic choice begins. As such past strategy exerts considerable influence on the final strategic choice.”

Hence, it is said that ‘past strategies are often the principal architects of current strategies.’

Pearce and Robinson explain the reason in this way – “Because they have invested substantial time, resources and interest in these strategies, the strategists would logically be more comfortable with a choice that closely parallels past strategy or represents only incremental alternations.”

Henry Mintzberg says, “the past strategy strongly influences current strategic choice.” On the other hand, Barry M. Staw has remarked, “the older and more successful a strategy has been, the harder it is to replace. It is very difficult to change because organisational momentum keeps it going."

Factor # 8. Personal Characteristics:

Personal factors like own perception, views, interests, preferences, needs, aspirations, personal disposition, ambitions, etc., are important and play a vital role in affecting strategic choice. Even the most attractive alternative might not be selected if it is contrary to the attitude, mindset, needs, desires and personality of the selector/strategist himself.

Thus, personal characteristics and experience affect a person's assessment and choice of strategic alternatives.

For example, one study found that narcissistic (self-absorbed and arrogant) type of managers favour bold actions that attract attention.

Factor # 9. Value System:

The role of value system in choosing a strategic alternative is well recognized. While evaluating the strategic alternatives, different executives may take different positions because of differences in their personal values. Guth and Tagiuri found that personal values were important determinants of the choice of corporate strategy. Similarly, value system to top management affects the types of strategy that an executive chooses.

Factor # 10. Managerial Attitude towards Risk:

Managerial attitude towards risk is an important factor that influences the choice of strategy. Individuals differ considerably in their attitude towards risk taking. Some are risk prone, others are risk averse.

Conceptually, one may distinguish between the following attitudes reflecting the order of risk preferences:

i. Risk is necessary for success;

ii. Risk is a fact of life and some risk is desirable; and

iii. High risk destroys enterprises and needs to be minimized.

These attitudes may vary from risk taking to strong aversion to risk, and they influence the range of available strategy choices. Pearce and Robinson have suggested that, "where attitudes favor risk, the range and diversity of strategic choice expand. High risk strategies are acceptable and desirable. Where management is risk averse, the diversity of choice is limited, and risky alternatives are eliminated before strategic choices are made. Risk-oriented managers prefer offensive, opportunistic strategies. Risk averse managers prefer defensive safe strategies."

Those who consider some risk is desirable, balance high with low risk choices and prefer a combined strategy. Also, executives may overlook the risks involved if they perceive an opportunity with optimism, i.e., where the tradeoff between risk and return weighs heavily in favour of the gains from the potential opportunity.

Research studies have also thrown some light on the risk preferences of decision maker:

i. Older managers tend to be less prone to risk taking. (Vroom and Pahl)

ii. Individuals who deal easily with risk and uncertainty are better able to cope with complex problems than those who are risk averse. (Sieber and Lanzetto)

iii. Risk-prone decision makers limit the amount of information they consider and tend to make decisions rapidly. (Taylor and Dunnette)

Factor # 11. Managerial Power Relations:

Choice of strategy is also influenced by the power play among different interest groups. William Guth in his study found that strategic choice is significantly affected by interpersonal relations and power relationship among members of the top management team. Power politics is a crucial factor determining the choice of strategy.

A few research findings conclude:

i. If the chief executive is in favour of a strategic option, it may be endorsed by senior

managers close to him, but one or the other managerial clique may oppose it.
ii. Lower level managers can greatly influence the choice eventually made by the chief executive.
iii. Where a participative decision-making process is in vogue, the strategic choice eventually made by top management is quite often the outcome of a lot of filtering that takes place of die alternatives at lower levels of management. For instance, strategic choices made by lower level managers may limit the strategic options considered by top management.
iv. One study made by Eugene Carter showed that while suggesting a strategic choice, different departments evaluated the strategic alternatives differently and in their own interest.
v. Ross Stanger finds that “strategic decisions in business organisations are frequently settled by power rather than by analytical maximisation procedures.”
vi. Fahey and Naravan suggest that “every organisation is a coalition of many individuals and their groups and each of them puts some kinds of pulls and pushes depending on the internal power relationship. These pulls and pushes operate in different phases of strategic decision-making.”

Factor # 12. Coalition Phenomenon:

Cyert and March have observed another power factor that influence strategic choice. They explained that “in large organisations, subunits and individuals have reason to support some alternatives opposed by others. Mutual interest often draws certain groups together in a coalition to enhance their position on major strategic issues. These coalitions, particularly the more powerful ones, exert considerable influence in the strategic choice process.”

Factor # 13. Time Dimension:

The time dimension also influences strategic choice in the following ways:

i. Time pressure – The ‘deadlines’ for making the decisions or choosing an option create time pressures under which managers may be forced to make a choice. In the absence of time pressure, the choice might be different. Peter Wright observes, “Under time constraint, managers put greater weight on highly negative information and considers fewer aspects of the problem”.
ii. Time frame – Here, a manager considers the short-term and the long – term implications of a choice. If the incentive compensation of managers is related to short-run earning performance, there is very likelihood that long-term strategic considerations would be ignored.
iii. Time horizon – It refers to the period of commitment that goes with it. A long-range strategy implying commitment of resources for an uncertain future is often less acceptable than one having immediate relevance.
iv. Timing of a decision – It is yet another aspect of time dimension that may determine the quality of the strategic choice. A prompt decision may be required to make the best use of an opportunity and before the competitors have time enough to capitalize it.
Pearce and Robinson suggest that “strategic choice will be strongly influenced by the match between management’s current time horizon and the lead time associated with different choices.”

Factor # 14. Information Constraints:

Availability of information is a crucial factor in the choice of strategy. Managers choose a strategic option on the basis of relevant data and information. The degree of uncertainty and risk depends upon the amount of information that is available to the strategist. The greater the amount of available information, the lesser the risk is. Hence, managers must ensure the availability of all information bearing on the strategic alternatives.

Factor # 15. Competitors’ Reactions:

It is important to consider the competitors’ reactions, responses and capacity to react and its impact while choosing a strategic alternative.
For example, if a company decides to choose an aggressive strategy which directly affects

the key competitors to react, then the company may also pursue an aggressive counter-strategy for safety. It would be unrealistic for the company not to consider that possibility.

Factor # 16. Styles of Decision Making:
Decision making styles also play a vital role in choice of strategy.
i. Systematic and Intuitive Styles:
Sometimes managers may use systematic procedure for making decisions. Many times top managers make strategic decisions on the basis of their intuition. A systematic managers relies on a systematic plan and process for making decisions. He defines everything. But an intuitive manager keeps the overall problem in mind, relies on hunches, jumps from one step to another and explores solution quickly.
Systematic thinkers see interrelationships, focus on areas of high leverage (best solutions) and avoid symptomatic solutions. Intuitive thinkers consider a number of alternatives simultaneously and abandon them quickly. They rely heavily on intuition, creativity and judgement. Intuitive style is more used in making ill-structured kinds of decisions.
ii. Centralised or Decentralised Styles:
Where centralised decisions are made, only top managers use their wisdom and rationality. This style is found in large corporations. Top managers can accept or reject the suggestions of lower level managers in centralised decisions. In a decentralised style lower level managers suggest their strategic choices. Also, the choices of different departments are considered.

Factor # 17. Governmental Policies:
This includes the regulations, directives, guidelines and regulations of business environment. The government plays a crucial role in setting down the priorities and projects of the business. A change in government policies may affect the future prospects of a business.
Almost every industry depends on the governmental policies to a great extent. Government reports also have a major impact on the strategic plans of the organisations. Thus governmental policies act as the most important factor that a strategist should take into account while making strategic choices.

Factor # 18. Critical Success Factors and Distinctive Competencies:
Critical success factors are the key factors required for the success of an organisation. Distinctive competency is a specific ability possessed by an organisation. Strategists should look at specific qualities and strengths possessed by the organisation for making a strategic choice. They should also consider the critical success factors for their organisation while making a strategic choice.
Factor # 19. Execution Capacity:
Strategy choice must take into account the firm’s ability to execute the strategy. Without execution, strategy has no meaning. The strategists must consider the elements like people, skills, processes, resources, and culture of the firm. The ‘suit must fit.’ Firm’s limitations must be considered for proper execution.

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by personal involvement. One cannot afford to lose sight of the research findings of Professor. Mintzberg and his associates.
The research findings say-
1. The older and more successful a strategy, the harder it is to change. The present strategy stems from a past strategy developed by a single, powerful leader. This original and tightly integrated strategy is a major influence on later strategic choices.
2. Once a strategy gets under way it becomes exceedingly difficult to change, and the bureaucratic momentum keeps it going. It becomes a sort of ‘push-pull’ phenomenon; the original decision- maker pushes the strategy, when lower management pulls along.
3. When the past strategy begins to fail because of changing conditions, the enterprise reacts

and grafts new sub- strategies on to the old and only later seeks out a new strategy.
4. If the environment changes even more radically, then the enterprise begins to seriously consider other alternative strategies which might have been previously suggested but ignored.
Similarly, it is the nature of firms that determines to what extent past strategies influence the present or future strategy choice. According to Reymonds E Miles and Charles C. Snow, the firms are four categories as defenders, prospectors, analysers and reactors. “Defenders” are those firms which penetrate in a narrow market product domain and guard it.
They emphasize more on cost effectiveness, centralised control, intensive planning and put less emphasis on environmental scanning. “Prospectors” are the firms that use broad planning approaches, broad environmental scanning, decentralised controls, and reserve some resources utilised for future use.
They go on searching new products markets on regular basis. “Analysers” are those firms that he between the defenders and prospectors. That is, analysers act some times as defenders and sometimes as prospectors. That is they are sitting on the fence.
“Reactors” are the firms that realise that fact that their environment is changing but fail to relate themselves with the changing environment. Hence, they should act is any one of the ways as defenders or prospectors or analyses or face extinction.
If at all, one is to exile from the influence of the past strategy, the only alternative is to dethrone the past management. In fact, Professors Glueck and Jauch quite bluntly state “Strategic change is less likely if the new executives are promoted from within, and it is least likely if the existing management group remains in power.”
It is because the old strategy of the old or existing people at the top which is flowing in the blood so much so that they are charmed by the old strategy.

Factor # 6. Time Dimension of Strategic Choice:

Yet another very important factor in the process of strategic decision making is the time dimension of strategic choice.

This time dimension has four elements which one cannot ignore, these are:

(i) Time pressure,
(ii) Time frame,
(iii) Time horizon and
(iv) Timing of the decision.

(i) Time Pressure:

Decisions are to be taken within the dead line. This dead line is set by higher ups which cannot be questioned. It is these deadlines which generate time pressure within which the managers are forced to make the right choice. For instance, say that there is an offer of acquisition by another company.
The strategists because of the time pressure or a deadline which gives hardly 36 hours, they may accept thinking that such acquisition might reduce the losses because further continuation leads to further deterioration. It is equally true that, acquisition being a very important decision, the strategist may not take decision and post pone it as it warrants ins and outs of proposed acquisition.

(ii) Time Frame:

Time frame refers to time frame of the decision in question. That is, the short-term and long-term implications of a choice. It depends on the reward system that is prevailing in an organisation.
In case the reward system of the firm is associated with achievement of short-term goals, the choice is to gains for short term gains ignoring the long-run gains of the proposed choice. Instead, if the rewards are associated with long-term achievements, there is every possibility of ignoring short-run gains.

(iii) Time Horizon:

This part of time dimension speaks of the period of commitment that goes with it. We have already conversant with stable growth strategy and diversification strategy. It is the strategy in question that decides the time horizon. For example, stability strategy warrants immediate action and the fruits start bearing very early.

Instead, if it is a diversification strategy the decision is not immediate as the fruits of diversification are available in due course of time rather than immediate future. Thus, a long-range strategy that calls for commitment of resources for an uncertain future is less acceptable than that of one having immediate relationship.

That is 'Law of Delay' devised by Mr. C. Northcote Parkinson applies. That is, the longer a decision can be delayed, the lower the probability that it will ever be accepted. Much depends on the strategists.

(iv) Timing of Decision:

Timing of a decision determines the strategic choice. It is the timing of the decision that determines the effectiveness of it. It is well known "stitch in time saves nine" which applies. For instance, a prompt and timely decision is a must to exploit the opportunity which is open to the firm.

It should be encashed well before the competitors have hand at it. Again, a decision to enter a new market is going to be in favour of the firm which cannot be delayed. If so the competitors waiting will not wait for you. Thus, delay makes year to lose the golden opportunity on which you can care your future success.

Factor # 7. Reaction of Competitors:

The strategic choice of a strategy option is bound to reflex in the competitors' reaction. Therefore, a wise strategist places himself in the shoes of the competitor or competitors to know where exactly the shoe bites. Only after studying the reactions, he may be able to take correct decision than ignoring the impact of competitor reaction.

Much depends on your market position. That is, whether you are leader, challenger, follower or nicher. Say, both your firm and your arch-rival firm are challengers. In this case, it is quite possible that your competitor may take your strategic option as very aggressive and makes the competitor to have counter strategy to overpower you.

Say, you reduced the price of your branded product, then other company might reduce equally and give some addition incentive in kind. If you are a follower, then the strategy of follow the suit operates. We know the case of price war going on between arch rivals namely Hindustan Lever and Proctor and Gamble.

If the first company has reduced the price of Surf Excel from Rs.85 to 70 for a half kilo pack, Proctor and Gamble has done so in case of Arial. Later, Surf Excel has been introduced with new proposition.

The followers say Nirma and others being followers, have no choice than to follow the suit without option. Thus, the competitor's reaction has far reaching impact on the choice of a strategy.

Factor # 8. Availability of Relevant Information:

When it is a question of choice rather rational choice, the quality and quantity of information decide the strategy choice. The choice or strategic decision that is based on facts, the considered opinions other sources of information written as oral are more sound and acceptable that is, the degree of risk and uncertainty depends on the amount and quality of information made available to the decision makers.

There is inverse relationship between the available information and the degree of accuracy of strategic choice. That is, the greater the amount of high quality information, lesser the risk and uncertainty. The decision maker is a risk-prone or a risk averter or risk neutral.

Risk prone and risk averters need the information to decide whether to take or not the calculated risks which are unavoidable in the world of business. Hence, the decision makers need a package of relevant information to analyse and interpret and act. The information is not easily available which costs in terms of treasure, time and talent.

Factors Affecting Strategic Choice (Objectives of the Firm)

Given the objectives of the firm and given a set of strategic alternatives, corporate planners have to make the final strategic choice for achieving the corporate objectives in the best possible manner. This decision is the most crucial decision that the planners have to take.

This phase of decision process is also known as selection phase. Any error on the part of the decision-makers may affect the business activities of the firm in an ineradicable way. We propose to present this subject from the point of view of actual decision-makers.

It is clear that to make a strategic choice one has to evaluate the strategic alternatives in respect of some selective measures and compare these evaluation results to pick up the best possible course of action. Choice of strategy is, in this sense, dependent on choice of selective measures of evaluation. Since the ultimate aim of the planners is to meet the corporate objectives, the selective measures should be in close consistency with the corporate objective.

For example, if profit maximization is the objective of the firm then expected profit should necessarily be a measuring instrument. Alternatively, if objective is to maximize sales and maintain a minimum profit, selective measures should necessarily include expected sales and expected profit. Choice of these measures can make lot of difference in the ultimate choice of the strategy.

It has been observed from the past experiences that following factors mostly regulate the choice— decisions of selective measures, and directly or indirectly influence the strategic choice:

1. Managerial perception of external dependence.
2. Managerial inclination towards past strategies.
3. Risk taking attitude of the managers.
4. Managerial power relationships.
5. Influence of lower-level managers.
6. Organizational culture.
7. Organizational politics.

1. Managerial Perceptions of External Dependence:

The way of looking of the corporate planners towards external dependency largely affects the strategic choice of the firm. No firm can work in isolation. It is dependent on external entities and external environment. For example, survival and growth of a firm largely depends on the roles played by its competitors. Strategic choice of a firm may vary with the degree of dependency. But this state of dependency may not be objectively measurable.

It is the perception of the top management that defines the state of dependency. Consider the case where profit maximization is the objective of the firm and the expected profit is the selective measure. Given these two, i.e., the objective and the measure, there may be many strategic choices, each being optimum in some sense. If the perception about dependency on competitors is such that the management likes to unconditionally maximize its profit, there will be one set of strategic decision.

It will be an optimum monopolistic decision given the managerial perception of minimum dependency. If the perception of dependency is such that the management wants to lead in the product field assuming others to follow, optimum strategic choice will be based on profit maximization under the reaction curves of the competitors. Thus, the firm will behave like a Stakelberg firm assuming others to be of Cournot type in an oligopolistic market.

Here, dependency is acknowledged but competitors are assumed to be followers. In another situation, the management may perceive high degree of dependency on a competitor and may like to act as a follower of that competitor. Then the conditional profit maximization of the firm will follow the path of reaction curve and incorporation of the decision of the market leader in the same.

One may refer to Henderson and Quandt (1980) for initial exposure and also to the works of Wolf and Smeers (1997), Sherali et al., (1983). Thus, managerial perception of external dependence can affect the strategic choice in a significant way even under a mathematically rigid micro economic setup with expected profit as the sole measure of efficiency.

In fact, more dependent a firm is on its external entities less flexible will be its strategic choice. In other words, perception of external dependence restricts the range of strategic choice of a firm. Unfortunately, dependencies are not always objectively measurable.

This is because market data do not speak for themselves. Managers interpret facts and figures and take subjective decision about dependence. A stronger firm may consider itself as competitively weak and a weaker firm may consider itself as competitively strong. Thus, the second one can stretch itself beyond its present resources.

According to Hamel and Prahalad (1993), abundant resources alone won't keep an industry giant on top when its hungrier rival practices the strategic discipline of stretch. Thus, the weights, which the two firms assign to various strategic alternatives, may markedly vary even though they may operate in the same product Held, facing the same environmental opportunities and threats.

2. Managerial Inclination towards Past Strategy:

Over inclination of corporate planners towards past strategies of the firm results in a situation where past strategies become the starting points of the future strategic choice.

This means elimination of some strategic choices for maintenance of functional continuity. Managers, being extremely overburdened with functional responsibilities in a competitive market, fail to appreciate conceptual and operational discontinuities. They prefer to work within the extrapolated domain of the existing strategies.

Mintzberg (1972), in his study on micro and macro level planning, observed that past choices of organizational strategy strongly influence the later strategic choices, especially when the past one had been developed by an influential leader in a unique and tightly integrated way. Mintzberg used the term gestalt strategy to describe these powerful past strategies.

The other aspect of strategic momentum is best explained through push-pull phenomenon. Initially, top management pushes a strategy and later lower management pulls it along and gradually becomes attached to it. Even if that strategy fails due to environmental changes, a tendency of grafting new sub-strategies on the old one is found to be a very common practice. Only when the environmental transformation becomes unmanageable, the firm goes for a new look and listens to unheard suggestions of the earlier years.

Works of Miller and Friesen (I977, 1978) also support the hypothesis of Mintzberg (1972). Staw (1976) observed that longer amount of resource commitment for a particular strategy leads to personal involvement of the management with that strategy. Escalated commitments towards the past decisions gradually reduce the strategic choices.

Strategists start feeling personal responsibility for results. Even if the results are negative, they tend to allocate more money for remaining consistent with the earlier decisions. In case a strategic choice leads to continuous failure, the firm may have to get rid of the strategic planners to get rid of the present strategy.

This effect of past strategies on the present strategic choice is more disturbing during the stages of maturity and decline than the stages of introduction and growth. Specially, during the stage of decline, an altogether different strategy is to be searched for to arrest the rate of decline. This is equally true for the stage of maturity when new excitement is to be created in the market through a new strategic choice.

3. Risk Taking Attitude of the Managers:

Screening of strategic alternatives takes place at the value base of the top executives and one of the most important values is the propensity to take risk. For risk taking manager, the set of alternatives is a super set of the set of alternatives generated by risk avoiding managers. Risk avoiders underestimate the strengths of the firm and overestimate the weaknesses.

In case of external environmental scanning, risk avoiders give more emphasis on threats than opportunities. As a result, strategic alternatives become only a few. The reverse situation arises for risk appreciating managers. They tend to be oriented towards strength and opportunity rather than weakness and threat.

The nature of the production field and degree of volatility may change the risk- taking attitude of the managers. In volatile industries, managers get habituated with absorbing greater risk because otherwise they have to quit the job. Similar is the case of a product field where lots of innovations take place. Executives of firms, operating in these product fields, become unknowingly risk oriented.

Risk attitudes of the managers of a firm may also vary over the years. As the organization grows in size, top management prefers to avoid risk. Hamel and Prahalad (1993) have also observed a similar tendency among the top executives of the market leaders. They pointed out that not a surfeit of resources but a scarcity of ambition bedevils market leaders. If there is scarcity of ambition, there will be low propensity to take risk.

4. Managerial Power Relationships:

Power relationships are key realities in the life of any business firm as pointed out by Jauch and Glueck (1988). Development of strategic alternatives and choice of strategy depend largely on managerial power relationships. If the top executive is all-powerful and floats an idea of a strategic alternative, there will be immediate acceptance and appreciation from the other executives irrespective of the merit of the suggestion.

In case an executive of the same rank moots an idea, there may be immediate opposition from a few without any qualitative assessment of the proposal. Relationships with the top manager also play crucial role in selecting SBU strategies and functional strategies.

If the top executive is having a close relationship with the head of one SBU, it may draw extra attention of the planner in respect of resource allocation and may continue to grow at the cost of other promising SBU's. Similarly, if the top man is from the marketing discipline he may tend to overact with marketing functions and under act with other functions.

Power plays among the internal and external coalitions have already been acknowledged as an important influencer of business objective. This is equally true for strategic choices. In every organization, workers union and associations of managers and supervisory staffs try to include or eliminate some strategic alternatives and regulate the process of strategic choice. The degree of influence varies from organization to organization.

According to a study of Mintzberg et al. (1976), organizational power-plays lead to three types of situations in which strategic choices are made. Under extreme concentration of power, a choice is made in a single individual's mind and is known as judgmental process.

And more centralized the decision making process is less documents and quantitative data are needed for decision-making. Further, need for judgement is more felt when the time to take a decision is very short. Under extreme time-pressure, decision-maker tends to apply his own judgment, ignoring the analytical and participative processes altogether.

In case the power is distributed in the hands of a few individuals, groups or coalitions, the strategic choice is made through a process of bargaining. By the term bargaining we mean decision-making under conflicting demands with each decision maker making his own judgement and trying to make it acceptable to others. Mostly past strategies, risk and external dependence figure in this discussion. The time taken for arriving at a final decision through bargaining is quite long.

In case power follows expertise and there is a prior agreement on objectives and responsibility for selection, the process of strategic choice becomes an analytical process. Analysis assumes importance under greater availability of documentary evidences and supporting data and larger commitment of resources.

For costly decisions, analysis is preferred to both judgement and bargaining. It has been observed by the researchers that the analytical process is twice quicker than the bargaining process. Unfortunately, managers mostly prefer judgement or bargaining than analysis unless staff specialists are available for doing the work. Even under analytical process, attitude of the managers play a vital role in remoulding the results of analysis.

5. Influences of Lower-Level Managers:

Though top management makes the final strategic choice, yet lower-level managers influence the choice process in a significant way, as observed in Bower (1970). Final strategic choice is never based on all strategic alternatives. Subordinates limit the strategic alternatives at different levels by doing a lot of filtering before they go to the top.

Bower's concept of sequential filtering had been tested by Schwartz (1973) on Digital Equipment Company and Texas Instrument Company. Schwartz found that lower- level management played important preparatory role in product innovation and also helped in risk evaluation. Lower-level managers prepared cases where risks were less and modifications were incremental in nature, rather than risky breakthroughs. As a result, top executive did not go for any major change in the product design.

Not only for product design but also for mergers and acquisitions, views of the lower-level management get reflected in the strategic choices of the top-level management. Carter

(1971), in his study on six acquisition decisions, observed that lower-level managers used to suggest those strategies, which were likely to be appreciated by the top management.

Different departments were found to be evaluating strategic alternatives in different ways to achieve the maximum departmental benefit. It was also noted by Carter that in case of increased uncertainty, lower-level managers preferred greater number of criteria for appraising a strategic alternative.

The study of Guth (1976) on the participation of lower-level managers in corporate planning revealed similar situation. He observed that the views of lower-level managers were likely to be influenced by the objectives of their subunits and the strategic choice would differ from the formulation by the top manager based on his own judgement.

6. Organizational Culture:

An organization is having a culture of its own. This organizational culture is made of a set of shared values, beliefs, attitudes, customs, norms and personalities. The successful functioning of an organization depends on strategy-culture matching. In case of a mismatch between strategic choice and the cultural framework of an organization, either one is to be redefined.

Otherwise, organizational culture may actively and forcefully start working against the organizational means. Every human being is having a basic need to make sense of his surroundings and to put control over the surroundings. These give meaning to their works. But when a strategic choice threatens the basic meaning of the work, individuals become initially defensive and latter offensive. They even try to backstab the new strategies to regain their earlier state. Thus, organizational culture strongly affects the strategic choice of an organization.

Managers, in their attempts to maintain cultural status quo, strongly resist the formulation of a strategic concept that may go against the organizational culture. It is necessary to ensure a supportive culture before planning a strategic alternative. Otherwise planning should be done to cultivate a new culture that can sustain the new strategic choice. But cultivation of a new culture requires lot of time and effort. Hence, managers allow those strategies to reach the top that require limited cultural changes.

In case of mergers or joint ventures, cultural commonality becomes an important issue. So many mergers have failed in the past because of cultural difference. Corporate planners are now conscious about the problems arising out of cultural mismatch. Many of the strategic alternatives are skipped to avoid the cultural problem during strategic implementation. According to Allarie and Firsirotu (1985), success or failure of aimed at corporate reforms wings on management's sagacity and ability to change the firm's driving culture in time and in tune with the required changes in strategies.

7. Organizational Politics:

Every organization is a political organization. Only the degree of politicization varies from organization to organization. In a highly politicized organization, political manoeuvring eats away precious time, lowers down organizational objective, misuses man-hours, destroys employees' moral and drives out talented and efficient employees. Beeman and Sharkey (1987) have pointed out many such abuses of corporate politics.

In case of lack of objective analysis, political manipulation takes the driving seat in strategic planning. Beeman and Sharkey (1987) have offered guidelines for minimization of influences of organizational politics on organizational strategic planning. According to them, the first and foremost neutralizer is the crystal clear performance evaluation and performance based rewarding system.

Minimization of resource competition among the managers can considerably reduce the political activities of an organization. This reduction can be achieved through emphasis given on external objectives. Care should also be taken to split the most dysfunctional political groups and prevent the managers from the mode of operation through personalization. If needed, executives engaged in politicized operation be removed.

Following David (1989), we may also propose the following generic approaches to neutralize the negative impacts of political influences:

i. The first generic approach is equifinality. It means equal results can be achieved through multiple ways and hence strategists should avoid confrontation. By imposing a pre-selected method, strategists do not gain much in the face of political opposition. Alternatives with greater potential for gaining political support and giving equal results should be explored.

ii. The other approach is to follow a satisfying role. According to this approach, it is better to achieve satisfying result under wide acceptance among the different power groups than to pursue an optimal but politically opposed method and failing to deliver goods.

iii. The approach of generalization also works well. Shift in focus from specific issues to general issues may reduce political resistance and help in gaining organizational acceptance.

iv. Focusing on higher order issues may help to postpone short-term interests in favour of long term ones. By focusing on the issue of survival, strategists may become successful in bringing political personalities in their fold.

v. Lastly, providence of political dialogue is an important neutralizer that takes away heat from the minds of the opposers. Managing intervening behaviour becomes easier when strategists can have more information about the objections of the political leaders.

Other Influencers:

In this age of discontinuity, power not only rests upon internal coalition groups but also rests upon external coalition groups such as groups of major customers, groups of key suppliers and groups of major shareholders.

In the present era, the board of directors is generally composed of outsiders rather than insiders. In a study covering 1,300 large companies in America, Henke (1986) has found that nearly 40 percent board members actively participate in formulation of strategic issues. Suppliers also limit the strategic choice in the backward direction and customers remoulds the alternatives mostly in the forward direction.

Time is also a key factor affecting strategic choice of an organization. In the short-run, management can read, with clarity, the requirements of the firm. But a quick change in direction is not a very easy task. In the long-run, requirements are obscured but directional adjustment are easier.

UNIT II

BUDGETING AND FORECASTING OPERATIONS AND PERFORMANCE GOALS

Meaning&DefinitionofBudget:

I.C.M.A Defines a budget as "A Financial and /or quantitative statement, prepared prior to adefined period of time, of the policy to be pursued during that period for the purpose ofattainingagiven objective."

1. Financialmeasurement
2. Timebound
3. Prior(Beforehand)
4. Attainingagivenobjective

Characteristics of a success budget process:

- **TheBudgetMustAddresstheEnterprise'sGoals**

  A budget must begin with the enterprise's short and long-term goals and not just re-create theenterprise's previous year's results with slight changes. It must care to include valuable inputfrom planning so that it becomes a powerful guiding tool. A budget is bound to be successfulwhenitaddresses an enterprise's goalsandobjectivesclearly.

- TheBudgetMustbeaMotivatingTool

  Thebudgetshould **motivate**allthepeopleintheenterprisetoworktowardattainingtheenterprise's goalsfor theoverallimprovementof theorganization.Thebudgetisoftensuccessfulwhenemployeesofanenterpriseview itasanessentialtooltoenhancetheir overallperformance.

- TheBudgetMustHavetheSupportofManagement

It is necessary to realize that the budget must have the support management at all levels ofthe organization because it is crucial to garnering the support of the employees of theenterprise.

- TheBudgetMustConveyaSenseofOwnership

The budget must **convey a sense of ownership** to the people responsible for implementingthe budget to be successful. The budget should never convey a sense of restriction or beoverbearingonthepeopleresponsibleforits implementation.

The budget should not be imposed on them, and instead, care must be taken such that thepeopleresponsibleforitsimplementationhavethenecessaryinputforthedevelopmentofthebudget.

- TheBudgetShouldbeFlexible

Mostsuccessfulbudgets areflexible.Aflexiblebudgetpermits anenterprisetogoaheadwithplans that are important to the enterprise strategically. A rigid budget becomes an excuse tonotexecutestrategicallyimportantplans. Aflexiblebudgetallows anenterprisetocarryoutessentialunplannedandunforeseenlargemaintenance works that benefit the enterprise. A rigid budget does not permit this, thushurtingtheenterprisein thelong run.

- TheBudgetShould beaCorrectRepresentation

Thebudgetshouldaccuratelyrepresentwhatisexpectedtohappen.Aninaccuratebudgetwill not have the support of managers and employees directly affected by it and willencouragemanagersofanenterprisetofabricate“budgetaryslack”intotheirbudgets. Budgetaryslackmeansbudgetinglowerrevenuesandhigherexpenditures,causingmanagers tobeunfairlyrewardediftheycurtailtheirexpensesorexceedtheirrevenuetargets.

- TheBudgetShouldbeCoordinated

The budget should be coordinated to operate within the different business units of anenterprisesmoothly. Forexample, thesalesmanagerwillstrive toincreasethesalesoftheenterprise, and the credit manager will be extremely keen on limiting bad debt write-offs.Here, efforts to set up credit standards that both of them can profitably support should beintegratedinto thebudgeting process.

RESOURCEALLOCATION

In economics, resource allocation is the assignment of available resourcesto various uses. Inthecontextofanentireeconomy,resources canbeallocatedbyvarious means,such asmarketsorplanning.

In project management, resource allocation or resource managementis the scheduling ofactivitiesandtheresourcesrequiredbythoseactivitieswhiletakingintoconsiderationboththeresourceavailabilityandtheprojecttime.

Economics

Ineconomics,theareaof publicfinancedeals withthreebroad areas: macroeconomicstabilization, the distribution of incomeand wealth, and the allocationof resources. Much of the study of the allocation of resources is devoted to finding theconditionsunderwhichparticularmechanisms ofresourceallocationleadtoPareto efficientoutcomes,inwhichnoparty's situationcanbeimprovedwithouthurtingthatofanotherparty.

Strategicplanning

Instrategicplanning,resourceallocationisaplanforusingavailableresources,for example human resources, especially in the near term, to achieve goals for the future. It is theprocessofallocatingscarceresources amongthevariousprojectsorbusiness units.

There are a number of approaches to solving resource allocation problems e.g. resources canbe allocated using a manual approach, an algorithmic approach (see

below), or a combinationofboth.
Theremaybecontingencymechanismssuchasapriorityrankingofitemsexcludedfromthepla n, showing which items to fund if more resources should become available and a priorityranking of some items included in the plan, showing which items should be sacrificed if totalfundingmustbereduced.

In strategic planning, resource allocation is a plan for using available resources, for examplehuman resources, especially in the near term, to achieve goals for the future.
It is the processofallocating scarceresourcesamongthevarious projectsorbusiness units.

The6StepsofResourceAllocation

Resource allocation is the process of assigning and scheduling resources to project tasks.Resources are the life blood of project management.Resources are used to carry out theproject,andarereturnedtotheirownersifnotconsumed bytheproject.
Thereare6steps toperformingaproperresourceallocation:

1. Divide the Project into
2. TasksAssign the Resources
3. Determineresourceattributes
4. ResourceLevelling
5. Re-allocate as necessary
6. Trackresourceutilization

I)**DividetheProjectintoTasks**
In project management, the project is divided into tasks and managed on a task, rather than aproject,level.Resourceallocationisanintegralcomponentofthisprocessbecauseeachtaskis assignedthenecessaryresources, andtheresources aremanagedbytask.

This is called a work breakdown structure(WBS), and it is the minimum planningphase for asmallproject,accordingtoallofthethreemainprojectmanagementmethodologies.
Oncetheproject issuccessfullydividedintotasks,theresourcescanbe assigned.

II) **AssigntheResources**
Each task requires resources in order to be successfully performed.As a minimum, mosttasks require a human resource to carry out some actions.Usually, the person starts withsomeinputmaterialswhichareused to producean output.
Generally,therearefivetypesofresources:
Labour
Human resources are an integral part of most projects.The project teamhas needs thatrequireactivemanagement, like:
A satisfying work environment that does not involve conflicts with other team members.Makinganimportantcontribution totheproject,and/or greatersociety.
Leaving the project with something more than they started with, for example additionalknowledgeorskills,orastrongresume/CV entrythatresults inabetterchanceatfuturework.
Equipment
Toolsandequipmentthatareusedtoproducetheproduct,butdon'tbecomepartofit,mustbe identified and allocated to each task.This equipment must be paid a reasonable rate thattakes into account the wear and tear experienced during the project.Specialty equipmentoftenrequiressignificantinvestmentoftimeand money.
Materials
Materials thatbecomeapartofthefinalproductmustbeallocatedsothatthey canbeprocuredattherighttimeand their availabilityisconfirmed.
Facilities
Buildings and work areas are often a significant cost to the project.If they are not readilyavailable,theyalsorequirespaceintheprojectscheduleandbudgettoensuretheyarereadyforth eprojectteam.
Miscellaneous
Most projects require other resources that impact the budgetor schedule.This can includeprojectfinancingandinsurancecosts,performancebonding,administration,contingencies,ri

sk premiums, transportation and delivery, or any other item necessary to perform theproject.

Grade

Grade refers to the technical specification level of the resource.In this case, thelength of thefenceposts, the depth of the holes, and the strength of the fence material are all characteristicsofgrade. In short, theresourcesmustbeadequatefor thetask.

Skill

Skill is the same as grade but specific to the human resources.Bill and Bob, in this case,mustknowhow to poundthefencepostsand bestrong enoughto drivetheposts.

Quality

Quality and grade are not the same thing.Qualityrefers to the degree to which the resourcemeets specifications, that is, if poor quality fence material arrives at the site it is notacceptable and must be rejected, adding unexpected costs and schedule implications.This isdifferent from the grade of the fence material, which can be low.The fence may not needhighgradefencematerial.Lowgradeis acceptable(intherightcircumstances),whereaslowqualityisnever acceptable.

III) Resource-specificattributes:Size,shape,length,speed,color,strength,etc.

Each resource has many specific attributes that define its function.for example, if the paint issupposedtobebrown,butagreenpaintarrives onsite,itisprobablystillhighqualityas well asgrade,yetnotsufficientfortheproject.Therequiredattributesmustbedeterminedindividuallyfor each resource.

Availability

In project management lingo this is called a resource calendar.The resource calendar canrange from a simple listing of employee vacation time to sophisticated material trackingsoftware.Butits purposeis toensuretheprojectresourceis availablewhenneeded.

IV)ResourceLeveling

Project schedules are usually created without the resources in mind.That is, the networkdiagramand gantt chartare manipulated to minimize the schedule duration based on thenumberofhoursordaysrequiredtocarryouteachtask,buttheresourcesassignedtothe taskmightbehighlyvolatile,incurringsometimes majorcostandscheduleimplications.

For example, if we need Bob for 2 hours one day and 18 hours the next, we might need to payhimovertimethereby driving theprojectover budget.

Resource levelingrefers to the process of inspecting the resources to ensure their use is as“smooth” and level as possible.It is a common scenario that it is more advantageous toextendtheprojectscheduletoavoid largespikes anddips inresourceusage.

In addition, the resources used to carry out those tasks must be procured (purchased),delivered, and prepared.During the project, they must be maintained and serviced.All ofthesetasks mustbeaccountedforwithintheprojectscheduleandbudget.

V)Re-allocateasNecessary

Throughout the project, resource re-allocation tends to be a constant and inescapable functionoftheprojectmanager.

Resourcesarescarce.Theysometimesdonotshow upontime,areneededbyotherprojects,or lose their usefulness over time.Many things can happen that require a shift of resourcesfromonetasktoanother,or achangein theprojectscheduleor budget.

VI) TrackUtilizationRates

Itis asurprisinglycommonoccurrencethataresourcearrivesataprojectandsits idleforalongperiod of time. It is equally common that project managers have no idea that the resource is being paid forbutnotbeing used. A simple solution is to track resource utilizationrates.The utilization rate is simply thepercentageof billabletime:

UtilizationRate=Number ofBillableHours /Number ofTotalHours

For example, if Bill worked 4 hours out of a possible 40 hours for the week, his utilizationrateis 4/40=10%.Clearlythis wouldsuggestcorrectiveactionis warrantedonthepartoftheprojectmanager

NeedEffectiveResourceAllocation

Resource allocation isaprocess ofplanning, managing, andassigning resources inaform thathelpstoreach your organization's strategic goals. Itcanmakeaprojectmanager's workeffective andsignificant. Eventhoughitsounds simple, itisvitalindeliveringprojectefficiently.

1. **Flexibleforallsize:**

Largeorganizationsmightbedealingwithmultipleprojects.Effectiveallocationofresources helpsproject managers toplantoassign resources toproject andmanagethemeffectively. Sowhetheritisabout1projector10projects,ifyouareallocatingresourcesproperly,thenyoucan handlethemallwithoutanyhassle.

2. **Savemoney:**

Effective resource allocation leadstonowaste ofmoney.Itletsyouknowtheperformanceofteammembersinaproject.Henceitcanbeeasierforyoutoassigntaskstotheresourceaccordingtotheirskills.

3. **Boostproductivity:**

Itisthefirstandforemostreasontochooseresourceallocation.
Ifyouhavefinished aproject ortaskbefore thedeadline without compromising thequality,thendefinitely itwill enhance yourbusiness productivity. Nomoretimeloss,nomoreextraefforts,andnomoreextralabourcharge.
Resource allocation helpsyoutoknowwhoisoverloaded andwhoisfreeatthatinstant.Soyoucanassigntaskstotheavailableresourcewithoutmuchworkload.

4. **Improvetimemanagement:**

Torunaprojectefficiently,itisimportanttoknowhowlongittakestheresourcestocomplete theprojects ortasks.Sometimes resources lagactual time.Butthisdeficiency canmakealargedifference. Proper allocation ofresources canset theactualestimatehourstocompletethetasks.

5. **Improvestaffmorale:**

Byallocatingresourceswisely,youcanseewhoisleadingandwhoislagging.Inmostcases, project managers can'tbeabletofigure outwhich teammemberisputtinghis/herbesteffort.Butifyouareallocating your resources wisely, thenyoucanidentify whoisdoingwhat,whoislagging orleading, whoistakingmoretimetocomplete aproject ascomparedtotheestimatedhour(s). Byfiltering thesefactors, youcaneasilygetthemostdeserving.So withoutharmingtheirself-confidence,youcanencouragethemtoworkbetter.

6. **Predictthefutureprojectplan:**

Properresource allocation canhelpyoutoidentify the presence oftheteammember(s)oremployee(s)inaparticulartaskanditmakeseasierforyoutoassigntasksaper theiravailability. Seeingtheprojectrequirementanddeadline,sometimesoneresourcecanbe assignedtomultiple tasks.Byallocating resources, employees canprioritize theirtasksandexecutethembasedontheirpriorities.

Theproject canbecompleted without muchhassle andthefutureplanning oftheprojectcanbedoneflawlessly.

7. Strategicplanning:
Whenacompanysetsitsvisionandgoal,resourceallocationplaysavitalrole.Properallocation ofresourcescanhelptoachieve andfulfilproject needs. Soultimately vision and strategic goalscanbedoneeffectively byeliminatingexistingrisks.

8. Manageteamworkload:
Letaproject isrunning over schedule andyouneedtoadjust theteam'sworkloadtodelivertheprojectontimewithoutanyobstacle.
Here,resource allocation canhelpyouinmanaging teamworkload. Itcanhelpyoutocheckthetasklistofteammembers andletyouknow whoisoverloaded withtasksandwhoseschedulehasmorecapacity.
Nowyoucanrearrangethetasktobalancetheworkloadandnoonewillgetoverloaded. As aresult, itincreases theteam's effectiveness andlater itleadstosuccessfulprojectcompletion.

9. Maintainaccuratetimelog:
Knowingexactlyhowlongittakesteammembers tocomplete ataskisavital partinrunning project efficiently. Sometimesteammembersrun -outactual workinghour(s).Inthosecases,businessgrowthsuffersabigloss. Byallocating resources youcandrawanaccurate picture ofactual timetakenbytheteammemberstocompletetheproject.

10. Eliminaterisk:
Identifyingthepotentialrisksbeforehandcandefinitelybringamazingresultstotheproject. Bytaking preventive actions, youcaneliminate alltherisksandcompleteprojectsontime

Conclusion:
Itiscleared thatresource allocation canbebeneficial foryourbusiness growth.Properallocation ofresources isvital inproject management asitoffersaclearreportontheamount ofworkhastobedone.It helpstoshowaclearinsight intotheteam'sprogresswithallocatingtherighttimetoeveryteammember.

REGRESSION ANANLYSIS

Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables. It can be utilized to assess the strength of the relationship between variables and for modeling the future relationship between them.

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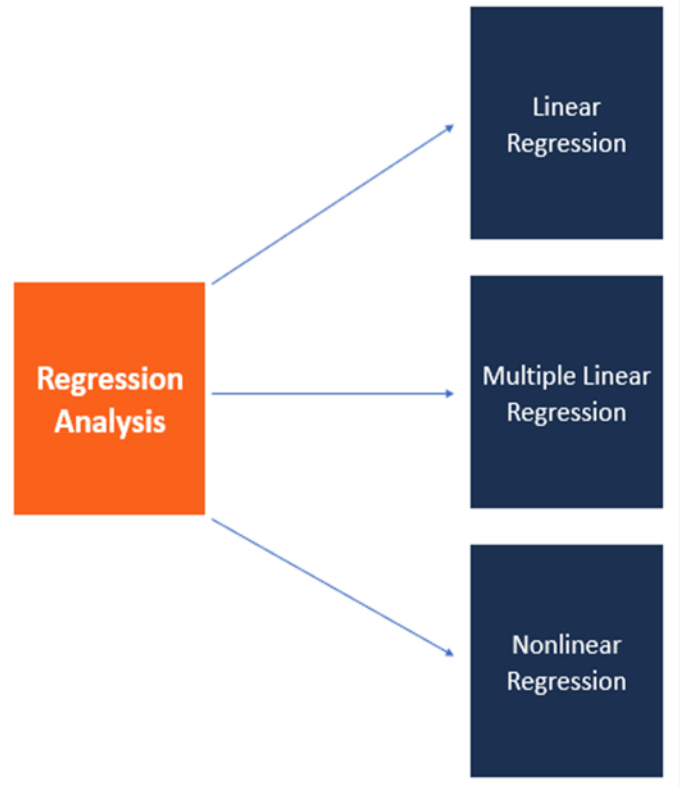


Regression analysis includes several variations, such as linear, multiple linear, and nonlinear. The most common models are simple linear and multiple linear. Nonlinear regression analysis is commonly used for more complicated data sets in which the dependent and independent variables show a nonlinear relationship.

Regression analysis offers numerous applications in various disciplines, including finance.

Regression Analysis – Linear model assumptions

Linear regression analysis is based on six fundamental assumptions:

1. The dependent and independent variables show a linear relationship between the slope and the intercept.
2. The independent variable is not random.
3. The value of the residual (error) is zero.
4. The value of the residual (error) is constant across all observations.
5. The value of the residual (error) is not correlated across all observations.
6. The residual (error) values follow the normal distribution

Regression Analysis – Simple linear regression

Simple linear regression is a model that assesses the relationship between a dependent variable and an independent variable. The simple linear model is expressed using the following equation:

$$\mathbf{Y = a + bX + \epsilon}$$

Where:

- **Y** – Dependent variable
- **X** – Independent (explanatory) variable
- **a** – Intercept
- **b** – Slope
- **ϵ** – Residual (error)

Regression Analysis – Multiple linear regression

Multiple linear regression analysis is essentially similar to the simple linear model, with the exception that multiple independent variables are used in the model. The mathematical representation of multiple linear regression is:

$$\mathbf{Y = a + b}X_1 + \mathbf{c}X_2 + \mathbf{d}X_3 + \epsilon$$

Where:

- **Y** – Dependent variable
- **X_1, X_2, X_3** – Independent (explanatory) variables
- **a** – Intercept
- **b, c, d** – Slopes
- **ϵ** – Residual (error)

Multiple linear regression follows the same conditions as the simple linear model. However, since there are several independent variables in multiple linear analysis, there is another mandatory condition for the model:

- **Non-collinearity:** Independent variables should show a minimum of correlation with each other. If the independent variables are highly correlated with each other, it will be difficult to assess the true relationships between the dependent and independent variables.

Regression analysis in finance

Regression analysis has several applications in finance. For example, the statistical method is fundamental to the Capital Asset Pricing Model (CAPM). Essentially, the CAPM equation is a model that determines the relationship between the expected return of an asset and the market risk premium.

The analysis is also used to forecast the returns of securities, based on different factors, or to forecast the performance of a business. Learn more forecasting methods in CFI’s Budgeting and Forecasting Course!

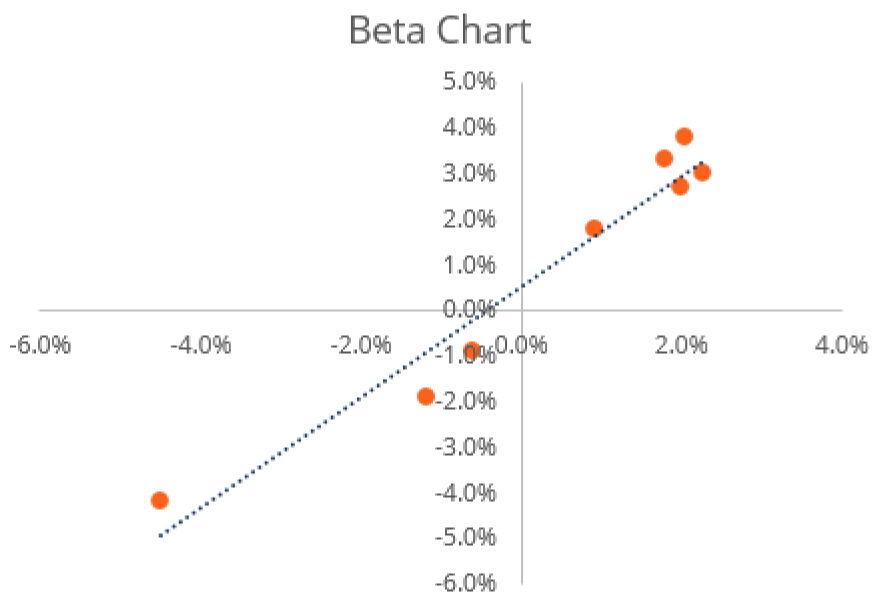
1. Beta and CAPM

In finance, regression analysis is used to calculate the Beta (volatility of returns relative to the overall market) for a stock. It can be done in Excel using the Slope function.

Beta (β) Calculator

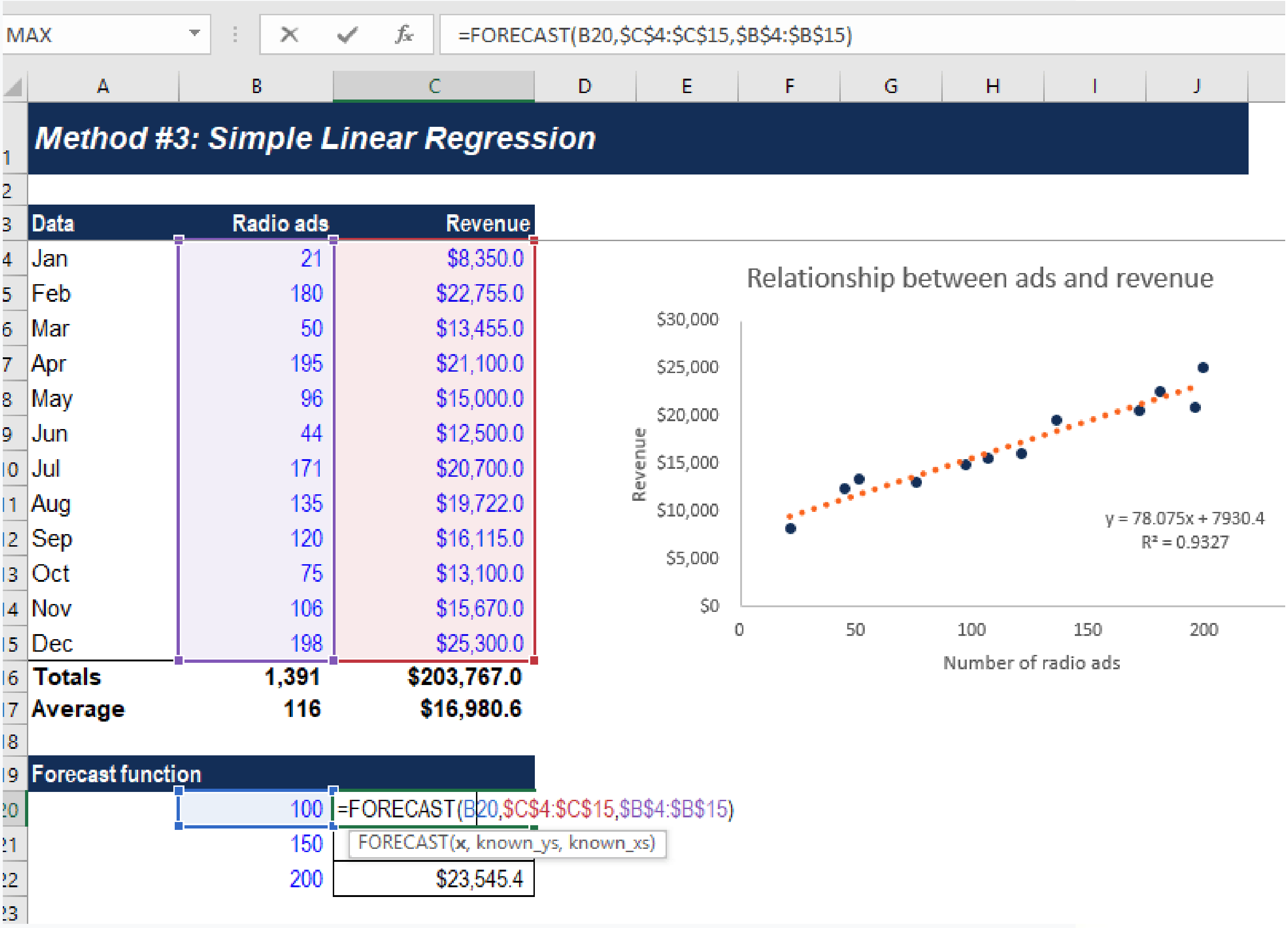
Individual Stock			S&P 500 Index		
Date	**Price**	**Return**	**Date**	**Price**	**Return**
1/2/2018	15.78		1/2/2018	2,696	
1/9/2018	16.38	3.8%	1/9/2018	2,751	2.0%
1/16/2018	16.67	1.8%	1/16/2018	2,776	0.9%
1/23/2018	17.17	3.0%	1/23/2018	2,839	2.3%
1/30/2018	17.02	-0.9%	1/30/2018	2,822	-0.6%
2/6/2018	16.31	-4.2%	2/6/2018	2,695	-4.5%
2/13/2018	16.00	-1.9%	2/13/2018	2,663	-1.2%
2/20/2018	16.43	2.7%	2/20/2018	2,716	2.0%
2/27/2018	16.97	3.3%	2/27/2018	2,765	1.8%

Beta (β)	1.21



2. Forecasting Revenues and Expenses

When forecasting financial statements for a company, it may be useful to do a multiple regression analysis to determine how changes in certain assumptions or drivers of the business will impact revenue or expenses in the future. For example, there may be a very high correlation between the number of salespeople employed by a company, the number of stores they operate, and the revenue the business generates.



The above example shows how to use the Forecast function in Excel to calculate a company's revenue, based on the number of ads it runs.

Additional resources

We hope you've enjoyed reading CFI's explanation of regression analysis. CFI offers the Financial Modeling& Valuation Analyst (FMVA)™ certification program for those looking to take their careers to the next level. To learn more about related topics, check out the following free CFI resources:

- Cost Behavior Analysis
- Financial Modeling Skills
- Forecasting Methods
- High-Low Method

Cost behavior Analysis

Cost behavior analysis refers to management's attempt to understand how operating costs change in relation to a change in an organization's level of activity. These costs may include direct materials, direct labor, and overhead costs that are incurred from developing a product. Management typically performs cost behavior analysis through mathematical cost functions.

Cost functions are descriptions of how a cost (e.g., material, labor, or overhead) changes with changes in the level of activity relating to that cost. For example, total variable costs will change in relation to increased activity, while fixed costs will remain the same. Cost functions may come in various forms.

Cost Function Assumptions

Cost functions are usually given in the form of **y = mx + b** and can be plotted on a graph. In order to determine these cost functions, managers typically make the following assumptions for simplicity reasons:

- Variations in the cost driver explain the variations in the related total costs.
- Cost behavior can be summarized into a linear cost function within a relevant range.

The relevant range here refers to the range of activity in which the relationship between the total cost and the level of activity is maintained. However, in real-life situations, not all cost functions are linear, and also are not explained by a single cost driver.

Quantitative Cost Analysis

It is common for management to use quantitative analysis methods to illustrate cost functions. The simplest approach is the high-low method. This method uses only the highest and lowest values of the cost driver and its respective costs to determine the cost function.

Although there are many limitations to this approach, it is a simple first attempt at examining the relationship between the cost driver and the overall costs.

Regression analysis is another method that uses statistical methods to measure the average amount of change in the dependent variable associated with changes in the independent variable. The regression approach is a much better indication of the relationship between the variables. Software such as Microsoft Excel is a useful tool for performing regression analysis.

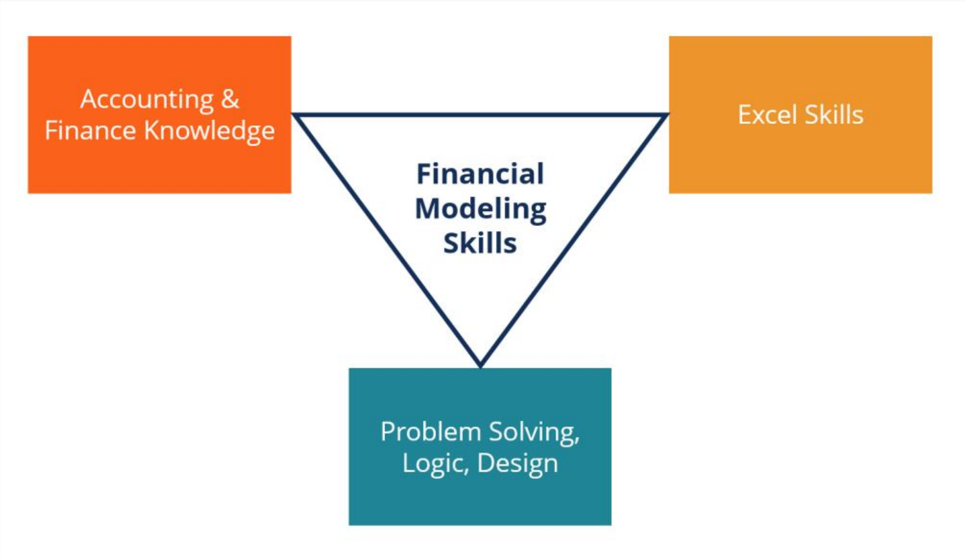
Financial Modeling Skills

This free guide outlines the top 10 most important financial modeling skills required to be a world-class financial analyst. Financial modeling is the art of building a dynamic tool (an Excel model) that can be used to evaluate investment opportunities, mergers & acquisitions (M&A), capital raising, or to assess a company's historical or forecasted financial performance.

The most important financial modeling skills are:

1. A solid understanding of accounting
2. Strong Excel skills
3. Knowing how to link the 3 financial statements
4. Understanding how to build a forecast
5. A logical framework for problem-solving
6. Attention to detail
7. Ability to distill large amounts of data into a simple format
8. An eye for design and esthetics
9. Clear presentation skills
10. The ability to easily zoom in on details, and zoom out to high-level strategy

Each of these financial modeling skills is broken down in further detail below. As the image below shows, these skills can be divided into 3 categories: accounting/finance, Excel, and problem-solving/logic/design.



Top 10 financial modeling skills:

#1 Accounting skills

In order to build a financial model, it's important to possess a solid understanding of accounting fundamentals. This includes concepts such as the matching principle, accruals, revenue recognition, non-cash items such as depreciation, amortization, and more. You need to have sufficient accounting skills to understand how to read financial statements, how to dissect them, and how to build them back up again.

#2 Excel skills

Strong Excel skills are critical for financial modeling. Creating financial models can sometimes be more of an art than a science. You'll need to know all the main keyboard shortcuts to help save time and build models as quickly as possible.

You'll also need to know all the main formulas and functions to perform calculations and financial analysis.

#3 Linking the three financial statements

Another skill that's very important is being able to link the 3 financial statements. This means taking historical financial statements (income statement, balance sheet, and cash flow statement) and dynamically linking them together in Excel. For example, connecting net income on the income statement to retained earnings on the balance sheet. This can be one of the trickiest skills to master, but as with any other skill, practice makes perfect.

#4 Forecasting skills

Being good at forecasting is definitely both an art and a science. An analyst can use regression analysis to predict future results based on historical results. Don't let the science of regression give you false confidence though, as it still requires making major assumptions about future unknowns. In addition, qualitative factors such as the management team and culture have to be taken into account.

#5 Problem-solving skills

A good financial analyst has the ability to think logically and in a very organized manner. When building a financial model, it's important to follow a logical flow of information so that other users can easily understand what you've done when they jump into your Excel file.

#6 Attention to detail

This is an absolutely essential skill for financial modeling. Given the vast amount of information and the intricate nature of a complex model, if you don't have attention to detail, you're not likely to be great at financial modeling. Fortunately, training yourself to pay attention to details is mostly just a matter of developing that habit if you don't already have it.

#7 Simplification of complex information

One of the hallmarks of a someone with great financial modeling skills is their ability to distill large amounts of complex information into a simple format. As Leonardo da Vinci said, "Simplicity is the ultimate sophistication".

#8 Design skills

One of the least discussed, yet most important, financial modeling skills is having an eye for design and aesthetics. A good financial model is easy to follow and easy on the eyes – it should have clean formatting, beautiful charts and graphs, and look professional. This is one of the 3 pillars of our Analyst Trifecta method, which we outline in our guide on how to be a great financial analyst.

#9 Presentation skills

A great financial modeler will also be able to create an effective PowerPoint Presentation and Pitchbook to communicate the results of the model to managers, executives, or clients.

#10 Detail vs high-level strategy

A great analyst possesses the rare ability to easily zoom in on extreme levels of detail in a model and then quickly zoom out to high-level business strategy. Most people are stronger at one than the other; however, some people have the rare gift of being good at both.

Forecasting Methods

There are four main types of forecasting methods that financial analysts use to predict future revenues, expenses, and capital costs for a business. While there are a wide range of frequently used quantitative budget forecasting tools, in this article we focus on the top four methods: (1) straight-line, (2) moving average, (3) simple linear regression, and (4) multiple linear regression.

Technique	**Use**	**Math involved**	**Data needed**
1. Straight line	Constant growth rate	Minimum level	Historical data
2. Moving average	Repeated forecasts	Minimum level	Historical data
3. Simple linear regression	Compare one independent with one dependent variable	Statistical knowledge required	A sample of relevant observations
4. Multiple linear regression	Compare more than one independent variable with one dependent variable	Statistical knowledge required	A sample of relevant observations

#1 Straight-line Method

The straight-line method is one of the simplest and easy-to-follow forecasting methods. A financial analyst uses historical figures and trends to predict future revenue growth.

#2 Moving Average

Moving averages are a smoothing technique that looks at the underlying pattern of a set of data to establish an estimate of future values. The most common types are the 3-month and 5-month moving averages.

#3 Simple Linear Regression

Regression analysis is a widely used tool for analyzing the relationship between variables for prediction purposes.

#4 Multiple Linear Regression

A company uses multiple linear regression to forecast revenues when two or more independent variables are required for a projection. In the example below, we run a regression on promotion cost, advertising cost, and revenue to identify the relationships between these variables.

High-Low Method

What Is the High-Low Method?

In cost accounting, the high-low method is a way of attempting to separate out fixed and variable costs given a limited amount of data. The high-low method involves taking the highest level of activity and the lowest level of activity and comparing the total costs at each level. If the variable cost is a fixed charge per unit and fixed costs remain the same, it is possible to determine the fixed and variable costs by solving the system of equations. It is worth being cautious when using the High-Low Method, however, as it can yield more or less accurate results depending on the distribution of values between the highest and lowest dollar amounts or quantities.

Understanding the High-Low Method

Calculating the outcome for the high-low method requires a few formula steps. First, you must calculate the variable cost component and then the fixed cost component, and then plug the results into the cost model formula.

First, determine the variable cost component:

Variable Cost =HAUs−Lowest Activity Units

HAC−Lowest Activity Cost

where:

HAC=Highest activity cost

HAUs=Highest activity unitsVariable cost is per unit

Next, use the following formula to determine the fixed cost component:

Fixed Cost=HAC−(Variable Cost×HAUs)

Use the results of the first two formulas to calculate the high-low cost result using the following formula:

Low Cost=Fixed Cost+(Variable Cost×UA)

where:UA=Unit activity

What Does the High-Low Method Tell You?
The costs associated with a product, product line, equipment, store, geographic sales region, or subsidiary, consist of both variable costs and fixed costs. To determine both cost components of the total cost, an analyst or accountant can use a technique known as the high-low method.

The high-low method is used to calculate the variable and fixed cost of a product or entity with mixed costs. It takes two factors into consideration. It considers the total dollars of the mixed costs at the highest volume of activity and the total dollars of the mixed costs at the lowest volume of activity. The total amount of fixed costs is assumed to be the same at both points of activity. The change in the total costs is thus the variable cost rate times the change in the number of units of activity.

LEARNINGCURVE

Whatis LearningCurve?-MeaningandConcept

Introduction

In any environment if a person is assigned to do the same task, then after a period of time,thereisanimprovement inhisperformance.Ifdatapointsarecollectedoveraperiodoftime,the curve constructed on the graph will show a decrease in effort per unit for repetitiveoperations. This curve is very important in cost analysis, cost estimation and efficiencystudies. This curve is called the learning curve. **The learning curve shows that if a task isperformed over and over than less time will be required at each operation**. Historically, ithas been reported that whenever there has been instanced of double production, the requiredlabortimehasdecreased by 10 or15 percentormore.

Learning curves are also known as experience curve, cost curves, efficiency curves andproductivity curves. These curves help demonstrate the cost per unit of output decreasesover time with the increase in experience of the workforce. Learning curves and experiencecurves is extensively used by organization in production planning, cost forecasting andsettingdelivery schedules.

LearningCurveonGraph

Learning curve demonstrates that over a period time, there is an increase in productivity butwithdiminishingrateasproductionincreases.Therefore,iftherateofreductionis20%thanthe learning curve is referred as 80% learning curve. Research has shown that as productionquantities double over a period of time, the average time decreases by 20% for immediateproductionunit.

Learningcurveisrelevantintakingfollowingdecision:

- Pricingdecisionbasedonestimationoffuturecosts.
- Workforceschedulebasedonfuturerequirements.
- Capitalrequirementprojections
- Set-upofincentivestructure

LearningCurvefromSingleUnitData

The data for effort put into production of a single unit is available than that data can be usedtoplotthreeuseful curves;theunitcurve,the cumulativetotalandcumulativeaveragecurve.

Unit curve is a curve which is plotted using a set of data available for the effort behindproductionofasingleunit.Thiscurveisgenerallyplottedonlog-logpaperandthenbestlinecanbedrawn.

Cumulativetotalcurveisacurvewhichisplottedusingcumulativeefforttotal.This produces curvewith positiveslope.

Cumulativeaveragecurveisacurvewhichis plottedusingthecumulativeeffortaverageforeachunit.

AssistanceScoreLearningCurve

As the name suggests an assistance score is the number of help, hint, wrong attemptsrecordedforagivenopportunityat thegiventask.Fromdetailedresearchandanalysis,ithasbeenobservedthatfor the1stopportunityatanaverageerrorof 1.3times is made.

ErrorLearningCurve

Errorlearningcurvedepicts thepercentageofassistanceaskedbytherespondents onthe1stopportunity.

PredictedLearningCurve

Predicted learningcurveisderivedfrom learningfactoranalysis,whichhasthecapabilityinmeasuring student proficiency, knowledge component difficulty and knowledge componentlearningrates.Thisanalysis helpsinquantifying thelearningprocess.

CriticismsoftheExperienceCurve

It has been observed that experience curve should not be viewed in isolation. Learning andexperiencecurvehasastrongdependencyonindividualsunderobservation.Ift heattitudeofthe individual is positive, the resulting curve will resemble learning curve but if the attitudeoftheindividualisnegative, theresultingcurvewillnotholdgood.

Expected Value

What is the Expected Value (EV)?

The expected value (EV) is an anticipated value for an investment at some point in the future. In statistics and probability analysis, the expected value is calculated by multiplying each of the possible outcomes by the likelihood each outcome will occur and then summing all of those values. By calculating expected values, investors can choose the scenario most likely to give the desired outcome.

\begin{aligned} EV=\sum P(X_i)\times X_i\end{aligned}$EV=\sum P(Xi)\times Xi$

UNDERSTANDING THE EXPECTED VALUE (EV)

Scenario analysis is one technique for calculating the expected value (EV) of an investment opportunity. It uses estimated probabilities with multivariate models to examine possible outcomes for a proposed investment. Scenario analysis also helps investors determine whether they are taking on an appropriate level of risk given the likely outcome of the investment.

The EV of a random variable gives a measure of the center of the distribution of the variable. Essentially, the EV is the long-term average value of the variable. Because of the law of large numbers, the average value of the variable converges to the EV as the number of repetitions approaches infinity. The EV is also known as expectation, the mean or the first moment. EV can be calculated for single discrete variables, single continuous variables, multiple discrete variables, and multiple continuous variables. For continuous variable situations, integrals must be used.

MASTERbudget

The master budget is a comprehensive financial planning document. It usually includes all ofthelower-levelbudgets withintheoperating budgetandthefinancialbudget.The operatingbudgetshowstheincome-generatingactivitiesofthefirm,includingrevenuesandexpenses.Theresultisabudgeted incomestatement

A master budget is a set of interconnected budgets of sales, production costs, purchases,incomes,etc.anditalsoincludesproformafinancialstatements.Abudgetisaplanoffuturefinancialtransactions.

Amasterbudgetservesasplanningandcontroltooltothemanagementsincetheycanplanthe business activities during the period on the basis of master budget. At the end of eachperiod, actual results can be compared with the master budget and necessary control actionscanbetaken.

ComponentsofMasterBudget

Masterbudgethastwomajorsectionswhicharetheoperationalbudgetandthefinancialbudget. They havefollowing components:

Operational BudgetSalesBudgetProductionBudget
DirectMaterialPurchasesBudgetDirectLabor Budget
OverheadBudget

Selling and Administrative Expenses BudgetCost of Goods Manufactured BudgetFinancialBudget

Schedule of Expected Cash Receipts from CustomersSchedule of Expected Cash Payments to SuppliersCashBudget

Budgeted Income StatementBudgetedBalanceSheet

Notethatalloftheabovecomponentbudgetsmaynotbeincludedinthemasterbudgetofevery business. Some of these such as production budget and cost of goods manufacturedbudgetarenotneed by anon-manufacturing business.

WHATIS MASTER BUDGET?

All the functional division of the organization prepares the budget for the particular division.The master budget is the sum total of all the divisional budgets that is prepared by all thedivisions. Further, it also includes the financial planning, cash-flow forecast and budgetedprofitandloss accountand balancesheetoftheorganization.Itis thegoaloftheorganizationtoreachalevelin aparticularperiod. Normallymaster budgetispreparedforayear.

Sometimes, it may be misunderstood that master budget is one large budget of theorganization.However,itisnotthecase.MasterBudgetisthesummaryofthedivisionalbudget.Itisa continuousfinancialplan.

STEPS TO PREPARE MASTER BUDGETSALESBUDGET

The sales budgetis the foundation of the master budget. All the procurements, staffrequirements and administration cost are based on the sales. First and foremost, the numberof units to be sold and price per unit are derived. On the basis of that, the value of sales iscalculated.

The sales budget is prepared based on considering the following factors:Marketdemandestimation

Production capacity or an infrastructure facilityCurrentsupply facility

Industryanalysis

Market demand and production capacity are determined with the help of Marketing divisionandproduction division respectively.

PRODUCTIONBUDGET

The production budgetis mainly based on the sales budget. However, following factors shallbeconsidered;

Inventoryatthebeginningoftheyear

Inventory to be maintained at the end of the yearNumber of unitsmanufactured

Bufferstocktobemaintainedthroughouttheyear

Theproductionbudgetisdividedintofurtherthreeparts:

Direct materialbudgetDirectlaborbudget

Manufacturingoverheadbudget

If the company is not having manufacturing unit, we require a number of units to purchaseinsteadof theproduction budget.

CAPITALASSETACQUISITIONBUDGET

The plant, machinery, and equipment require periodical maintenance and replacement. If thesales target is higher than the previous period, new plant and machinery also need to beintroduced. Therefore, careful planning of the capital assethas to be done. A financialbudgetisan integralpartof Master Budget.

CASHBUDGET

For all the divisional budgets, the organization requires cash. It needs to ensure that duringthe year it does not run out of the cash due to poor planning in preparation for the budget.On the basis of the sales and production budget, it is derived that what is the expectedreceipts and what are the expected payment. Receipt and payment cycle of the customer andsupplier need to be analyzed. At this stage, the organization decides whether the externalborrowingisrequired or not.

All the administration expenses such as interest on borrowing, staff cost, office rent, legalexpenses, office supplies etc are to be considered while preparing cash budget. Some factorsalso are dependent on the sales budget such as CEO's salary based on performance or theperformancebonusto salesstaff.

BUDGETEDINCOMESTATEMENT

On the basis of the above budgets, the budgeted income statementis prepared. BudgetedIncomestatementincludesfollowing;

Particulars	**Amt,**
BudgetedIncome	–
Less:Budgeted Expenses	–
Budgetedprofitability	–

BUDGETEDBALANCE SHEET

The budgeted balance sheet is prepared once the Budgeted Income Statement is prepared.Budgetedbalancesheetindicatesfollowing:

All the divisional budgets are interrelated. A mistake in preparation for any budget leads to amistake in the master budget. Hence, it is recommended to prepare the budget which isambitiousbutachievable and notafairytale.

APPLICATIONSOFMASTER BUDGET

IMPORTANTPLANNINGTOOL

The master budget is considered one of the most important planning tools for an organization.While planning, top-level management discusses the overall profitability and the asset andliabilitypositionof thecompany.For which, themasterbudgetisbeingused.

MEASURES PERFORMANCE

Master budget measures the performance of the organization as a whole.It helps indepartmental control and setting in departmental accountability. It helps in improving theefficiency.

INTERDIVISIONCOORDINATION:

The master budget is used for the interdivisional coordination amongst the divisions of theorganization. It helps and ensures that coordination with the other divisions is properly made.**ADVANTAGESOFMASTERBUDGET**

MOTIVATIONTOSTAFF

The master budget serves as a motivation tool on the basis of which the employees cancompare the actual performance with the budgeted performance. The Master Budget helpsstaff in getting job satisfaction as well as a good contribution to the growth of the business.**SUMMARYOFTHEDIVISIONALBUDGET**

Master budget works as a summary budget for the overview of the business owners and themanagement. The master budget indicates how much the organization is earning and what theexpensesareincurredasawhole.

PLANNINGIN ADVANCE

The master budget identifies the unusual problems in advance and fixes the same. Forinstance, one of the company divisions is not performing well and the expenses incurred areexceedingthesetbudgetlimit.This resultsinthelower profitabilityofthecompany.

HELPSIN THEACHIEVEMENT OFGOAL

The organization has short, medium and long-term goals. A master budget helps in achievingthe long-term goal of the organization. All the resources of the organization are channelizedandcontrolled for optimizationof theprofit.

CONTINUOUSIMPROVEMENT

The master budget is a continuous process. Each year the organization prepares the masterbudget and it works as a tool of analytics. The variances are identified and the worked uponforbetter resultson acontinuousbasis.

DISADVANTAGES OF MASTER BUDGETRIGIDITY

The divisional staff is forced for the achievement of the target despite having practicaldifficulties in achieving the same. It is because of the pressure from the top management.This leads to low revenue estimates and higher expense estimates. Managers may notconsider newopportunitiesforthegrowth oftheorganization.

DIFFICULTTOUPDATE

The master budget is not easy to modify. To add, alter or delete small change requires a lot ofsteps in the entire budget. It includes lengthy descriptions and charts. Hence, a master budgetcannotbeeasilyunderstooda

WhatIs aProjectBudget?

A project budget is the total projected costs needed to complete a project over a definedperiodoftime.It's usedtoestimatewhatthecostsoftheprojectwillbeforeveryphaseoftheproject.

The project budget will include such things as labor costs, material procurement costs andoperating costs. But it's not a static document. Your project budget will be reviewed andrevivedthroughouttheproject,hopefullywith thehelp ofaprojectbudgetingsoftware.

WhyYouNeedaProjectBudget

The obvious answer is that projects cost money. But it's more nuanced than that. Forexample,thebudgetistheenginethatdrivesyourproject'sfunding.Itcommunicatestostakeholders how muchmoneyisneededandwhen it's needed.

But it's not only a means to get things that your project requires. Yes, you need to pay teams,buyor rentequipmentand materials,butthat's onlyhalf thestory.

The other part of the importance of a project budget is that it's an instrument to controlproject costs.Thebudgetisyourplan,whichactsasabaselinetomeasureyourperformanceas you collecttheactualcostsoncetheprojecthasbeenstarted.

Related: CostEstimationforProjects:HowtoEstimateAccuratelyCreatingaProjectBudget

Asnotedabove,therearemanycomponents necessarytobuildabudget,includingdirectandindirect costs, fixed and variable costs, labor and materials, travel, equipment and space,licenses and whateverelsemayimpactyour projectexpenses.

To meet all the financial needs of your project, a project budget must be created thoroughly,notmissinganyaspectthatrequires funding.Todothis,we'veoutlinedsevenessentialstepstowards creating and managing yourprojectbudget:

1. UseHistoricalData

Yourprojectis likelynotthefirsttotryandaccomplishaspecificobjectiveorgoal.Lookingback at similar projects and their budgets is a great way to get a headstart on building yourbudget.

2. ReferenceLessonsLearned

To further elaborate on historical data, you can learn from their successes and mistakes. Itprovides a clear path that leads to more accurate estimates. You can even learn about howthey responded to changes and kept their budget under control. Here's a lessons learnedtemplateifyouneedtostarttrackingthosefindings inyourorganization.

3. LeverageYourExperts
Another resource to build a project budget is to tap those who have experience andknowledge—betheymentors,otherprojectmanagersorexperts inthefield.Reachingouttothosewhohavecreatedbudgets canhelpyoustayontrackandavoidunnecessarypitfalls.
4. ConfirmAccuracy

Once you have your budget, you're not done. You want to take a look at it and make sureyourfigures areaccurate.Duringtheprojectis notthetimetofindatypo.Youcanalsoseekthoseexpertsandotherprojectteammembers tocheckthebudgetandmakesureit's right.
5. Baseline andRe-Baseline theBudget
Your project budget is the baseline by which you'll measure you project's progress once ithas started. It is a tool to gauge the variance of the project. But, as stated above, you'll wanttore-baselineaschanges occurinyourproject.Oncethechangecontrolboardapprovesanychangeyou need to re-baseline.
6. UpdateinRealTime
Speaking of changes, the sooner you know about them, the better. If your software isn'tcloud-based and updating as soon as your team changes their status, then you're wastingvaluableand expensivetime.
7. Geton Track
Theimportanceofhavingaprojectmanagementsoftwarethattracks inrealtime, like ProjectManager.com, is that it gives you the information you need to get back on tracksoonerratherthanlater.Thingschangeandprojects goofftrackallthetime.It's theprojectsthat get back on track faster that are successful. Watch the video below to see how projecttrackingtools canhelp youcompleteyour projects ontimeandunderbudget.

Thingstoconsiderwhenmakingaprojectbudget
Likebuildingabudgetforyourbusiness, everyprojectbudgetplanhas afewconsiderationsto think through before you can dive into assembling the budget itself. Here are the mostsignificantones.

1. Costestimates
A budget in project management consists of many types of expenses: direct and indirectcosts,capitalexpendituresandoperatingexpenses,costsrelatedtoprojectdeliverables,andmore.

It can get complicated and make you crazy trying to capture the numbers accurately,especiallyforanundertakingthatyou'veneverattemptedbefore.Howdoyouestimatethecosts for theunknowable?

Tomaintainyoursanity,rememberthatyouareonlycreatinganestimate.Thebudgetnumbersrarelyalignwiththeactuals,anditis likelytochangeas aprojectunfolds.

Sofocus onmakingyourbesteffforttocapturetheresourceneeds foraprojectaccuratelyandto be as realistic as you can with cost estimates without being too conservative in yournumbers (to avoid going over budget).

2. Budgetcontingency
Thebiggestchallengewithprojectmanagementbudgetplanningistheunknown.Evenwithadetailed estimate of costs and resources, unexpected delays or changes in the project maynecessitatebudgetrevisions.

Therefore,justlikehowaprojectplanwillincorporatesomeslackinits timelines,it’sagoodideatosetasideasortofemergencyfundfortheunforeseen. This is calledacontingency.

Since it’s money for the unknown, it’s not easy to estimate. Too large an amount and thebudgetwillfeelinflatedtothosewhoneedtosignoffonit.Agoodruleofthumbis tosetaside10%ofthetotalbudgetforcontingencies.Ifyouendupcompletingtheprojectwith

minimal need to dip into the contingency reserve, the project benefits by coming in underbudget.

3. Budgetmonitoring

Justlikeyou’dtrackprojectactivities,youwanttotrackandmonitorexpendituresthroughouttheproject.Projectbudgetmanagementensures theprojectstays inlinewiththebudget.

Byregularlymonitoringthebudgetthroughoutthelifeofaproject,youcanquicklycatchifcosts begin to exceed estimates and make adjustments before the budget is blown. Thismonitoring also identifies additional budget needs with enough lead time to get the fundingbeforework musthalt.

Howtocreateacompleteprojectbudgetforyourprojects

Thecreationofaprojectbudgetis partoftheplanningphaseof projectmanagementprocessgroups.Herearethestepstocreateyourown projectbudget.

Step1:Identifyprojectscope

Beforeyoucanknow thecosts involvedinyourproject,youmustfirstbeclearontheprojectscope, timelines, and deliverables. For example, if a big project must be completed in a shorttimeframe, you’re likely to need staffing help. Consequently, a well-defined project plan is aprerequisitefor budgeting in projectmanagement.

An ideal approach is to build out a work breakdown structure (WBS) for the project. Thework breakdown structure allows you to capture all work involved in delivering a project at adetailed level. From there, it becomes much easier to assess the resource requirements forbudgeting.

Step2:Defineresources

Afteryouunderstandwhataprojectentails,youcanbeginassemblingthepieces ofthebudget.This means determiningtheresources required tocompleteaproject.

WhatI’vefoundinlaunchingsoftwareproductsforvariouscompaniesisthatmanyprojectbudgets encompass the same four ingredients with a fifth for miscellaneous items based onthenatureoftheproject.I’vebrokendown thesefactors foreasy considerationhere.

Staffing: The foremost and most expensive cost is staffing. Does your project requireadditional team members? If so, how many and for how long? If the new staff will be paid onanhourly basis, thelength oftimeshould bein hours.

Equipment: Equipment can take the form of machinery like an excavator for a constructionproject,oritcanbethe additionoftoolslikeproject managementsoftware.What equipmentis requiredfor yourproject?Capturethisinyour listofbudgetitems.

Sales and marketing: The nature of your project could involve sales and marketing costs. Forexample, when launching a new product, an advertising budget becomes a necessity. Someprojects maynotinvolvesales ormarketingcosts,butiftheydo,besuretofactor inexpenseslikesalescommissions.

Training: When a project is undertaken, usually some degree of organizational changemanagement is introduced. Changes require training. The more extensive the change, thegreaterthetraining investment.

Miscellaneous items: Another set of project cost considerations is dependent on yourparticular project needs. If you must travel for the project, then travel expenses must be partofthebudget. Ifoutsidecompanies areengaged,their fees mustbeaccountedfor.

List all the people and items that you'll need to successfully complete the project withindeadlines.Aligntheresources requiredfortheprojectwithwhatyoualreadyhaveavailabletoday. If there's a gap, this represents the scope of items requiring additional expenditures.Fromthere, you can determinethebudgetitself.

Step3:Assignamounts
Nowthatyouknow aproject's resourceneeds,it's timetoassignamounts.Godownthelistofresourcesand begin evaluatingcostsfor each.

Determiningdollaramountscanbehard;that'swhereresearchcomesintoplay.Investigatehistorical budgets for similar projects in the past. Perform research online or talk to teammemberswhohaveinsightintothevarious items andrelatedcosts fortheproject.

Forsomeresources,it'snecessarytomodeloutcosts.Thisisparticularlytrueforstaffing,whereemployeesalaries vary fromperson topersonandtimeisafactor.

Consequently, it's effective to create a model in project management software or aspreadsheettoestimatestaffingcostsacrossthetimeframeoftheprojectusinganaveragesalaryor industry normsfor thepositions.

Step4:Buildyourbudget
Once you've gone down the list of resources required for the project and assigned amounts,you'llhaveyourestimates.Remembertoincludeacontingencyfundaspartofyourbudget.

Next,compiletheseestimatesinyourprojectmanagementsoftwareorwhatevertoolyourcompany uses for this purpose. If you're using a spreadsheet or other free-form tool, it'shelpfulto group related itemstogether.

For example, all the training-related line items, like printing costs for training materials,shouldbetogether under atraining bucket.

As part of building your budget, note any assumptions that went into the figures. This isimportantbecauseonceaprojectbegins,someoftheassumptionsmayholdtrueandotherswillnot, resulting inactualprojectspenddiverging fromthebudget.

Bycapturingtheassumptions,you'llunderstandwhythebudgetdidn'treflectreality.

In addition, include a timeline if the budget spans a significant period of time — usually morethan a month. This allows any recurring costs to be clearly identified in the budget. It alsohelps you identifythetimingfor whencertain costswillarise.

Finally,review thebudgetwithotherprojectteammates togetfeedback.Anothersetofeyeson the budget can identify missing items and confirm the accuracy of amounts. This alsohelps you avoidbudgetmistakesrightbeforeseekingapprovals.

Step5:Obtainapprovalsand implement
When you present your project budget to stakeholders or other business leaders who mustapprove it, be prepared to justify the items and amounts. This is when you'll want to highlightkeyassumptions and otherrationale, suchasthestaffing model.

Once the budget is approved, it’s among the project manager's responsibilities to oversee it.It's a good idea to use project management software to track costs. As the projectmanagement triangledictates,ifteammatesstarttofallbehindondeliverablesorunexpecteddelays arise,costswillbeaffected.

You need to have visibility into your current costs so you can compensate or request anincreasedbudgetwithavalidrationaleandgameplanforhowtogetcostsundercontrol.

Activity-basedbudgeting

Activity based budgetingis a budgetingmethod in which budgets are prepared using ActivityBasedCostingafterconsideringtheoverheadcosts.Insimplewords,activitybasedbudgeting is management accounting toolwhich does not consider the past year’s budget toarrive at current year’s budget. Instead, the activities that incur the cost are deeply analyzedandresearched.Basedontheoutcomeofthestudy,theresources areallocatedtoanactivity.

Activity-basedbudgetingisaplanningsystemunderwhichcostsareassociatedwithactivities,andexpenditures arethenbudgetedbasedontheexpectedactivitylevel.Thisapproachdiffersfromthemoretraditionalbudgetingsystem,whereexistingcostlevelsare adjustedforinflationandmajorrevenuechangesinordertoderive the annualbudget. Anactivity-basedbudgetingsystemallowsfora highdegree ofrefinement incostplanning,andfocusesattentiononthevolumeandtypesofactivitiesoccurringwithinabusiness. Alikely outcome of using thissystem ismanagement planningto reducetheactivitylevelsrequiredtogeneraterevenue,whichinturnimprovesprofits.Italsomeansthat managersareforcedtohaveadetailedknowledgeofcompanyprocessesiftheywanttoenhancethecost structureofabusiness

Anotheradvantageofthesystemisthestronglinkbetweenitandthegoalsoftheparentcompany. Ideally,managementcan use the systemto see howmuch costisassociatedwitheachpartofabusiness,andthendecideswhetherfundsneedtobeallocatedtooraway from eacharea.Thiscould result ina shift in funding to support partsof thebusinesson which management wantsto place a greateremphasis, such ason thedevelopmentofnewproductsoraproductrolloutinanewgeographicregion. The downside ofactivity-basedbudgetingistheincreasedworkloadrequiredtotrackactivities,forwhichtheremaybenotraditionaltrackingsystems.Also,costsneedtobetracedbacktoactivities,forwhichtheremayalsobenosystemsinplace.Consequently,settingupsucha system canbe difficult.Anorganizationmayfindthat thistype ofbudgetingcanbemoreeasilyrolledoutonapilotbasis,perhapsbyusingitforasingledepartmentorprofitcenter,andmonitoringitsimpactonthebudgetingprocess.

Introduction toActivityBasedBudgeting

Activity-Based Budgeting is a process of creating a blueprint or financial plan in advancewhich will act as a yardstick by addressing individual activities which are to be carried outgiventhe limitedamountofresourcesinanorganizationusingresearchtoolsandallocatingthe resources accordingly as per their priority in form of a budget specifying expected coststhatarerequiredto bespent.

ComponentsandProcessof ActivityBasedBudgeting

ComponentsandProcessof ActivityBasedBudgetingaregivenbelow:

Itstartswithidentifyingactivitieswhichrevolvearoundresourceconsumptionandtheseactivities aremainlyclassifiedasmainactivitiesand secondary activities which denotes to the degree of involvement and importance of anactivitytotheorganizationaspertheirpriority,therefore,mainactivitiesareactivitieswhicharedirectly related withtheobjectivesandareessential.

Secondaryactivitiesarethoseactivitiesthatcreateaddedvalue tothe customerandchange itspreference in the organization’s favor which may involve a significant amount of resources.After defining the activities the next task is to identify how to distribute the costs or resourcesaccordingly among the activities which are done with the help of inducers which are factorsdefiningthelevelof consumption indifferentactivities.
Mainly three such inducers influence such decisions which are time which depicts theduration for the processes, amount of resources required by each activity and lastly thenumberoftimesanactivityisrepeatedaftergettingallthesefactstheappropriate costscanbecalculated.
ExampleofActivityBasedBudgeting
Followingistheexamplebudgetforthefirstquarteroftheyear2020ofcompanyAltdbasedontheactivity:

Particulars	Unit	Cost per unit ($)	No. of units	Total
Travel	Per person	20	200	4,000
Accommodation	Per person	10	200	2,000
Cost of Materials	Per Item	2	30,000	60,000
Storage	Per Product	1	25,000	25,000
Delivery	Per Item	1	15,000	15,000
Process 1	Per Item	5	30,000	150,000
Process 2	Per Item	1	30,000	30,000
Total				**286,000**

Advantages and Disadvantages of Activity-Based BudgetingAdvantagesandDisadvantages arementionedbelow:
Advantages
ThevariousdifferentadvantagesrelatedtotheActivity-Basedbudgetingareasfollows:

- Activity-Based Budgeting takes up **a forward-looking** view rather than looking atprevious activities which a common feature under traditionally based budgeting i.e. itasksquestionslikewhatneedstobeperformedandwherecanwemakeimprovementratherthanwhatwasdoneearlierandsortofjustallocationofcostsaccordingtothat.
- Activity-Based Budgeting sources its budgets based on activities and resourcesallowing better insight on **inefficiencies** in processes and sources of **imbalances**which will help the managers find areas of improvements making them more efficientintheirjobs.
- Activity-Based Budget has a more **practical approach** in a dynamic environment andmakes it easier for the employees and managers to communicate and execute theactivities in a time-bound manner as well as to evaluate performances of the same byfixingaccountability of specificactivities.
- Activity-Based Budget leaves scope for **making changes** as per the changes in theclimate and current situation as opposed to what was initially planned as it allowstools to trace resource consumption which allows identifying capacity issues so theycanadjustin atimely manner.

Disadvantages
ThevariousdisadvantagesrelatedtotheActivity-Basedbudgetingareas follows:

- Activity-Based Budgeting is **a lengthy and comprehensive process** that requires aconsiderable amount of time and resources on an entity and spending too much onanalyzingmay proveto becounterproductive.
- It requires a **well-groomed talented team of individuals** who are experts in findinggapsandareequallycompetentinreportinganduseofthenecessarysoftwareas itisacomplexprocessonwhich thedirection ofthecompanyisdependent.

While preparing an Activity Based Budget it is possible that the axis of focus may shift toimmediateandshorttermresultsandthebiggerpicturemaybeignoredcausingdamageinthelong term.

- Itisbasedonforecastingwiththeuseofhistoricaldataandfutureexpectationswhichmay sometimes prove to be unreliable if the situations or scenarios planned do notcome out to be what was expected to lead to problems that can hamper the entity andits resources.

Activity-Based Budgeting provides only supplemental information.ImportantPointsof theActivity-BasedBudgeting

It issimplyput gettinga detailedanalysisofall the costsassociatedwithactivities.Atoolthat enables the managers to gain control ensuring timely and quality delivery whilecushioning them for an unforeseen future as it is a flexible approach and promotes innovationwhichisagreatadvantagetohavecomparedtothetraditionalsystemofbudgeting.However,it is a much more complex and difficult to manage as compared to traditional systems as itsemphasis isontheaddedvaluesthatactivitiesbringto theproduct.

Activity-BasedBudgetinghashelpednotjustprivateinstitutionstorunsmoothlybutalsohasits impact on drawing major public policies and government spending. Various institutionslike schools, universities and non-governmental organizations have also been using thistechnique to make decisions, enable transparency and fix accountability of work creating abetter environment overall of efficiency and brilliance. The format and syntax of the budgetmayvary for differentorganizations thereisno uniformformat.

Conclusion

Itisadetailed,lengthy,complexandcontinuousprocessthatrequiresasignificantamountofresources and time which an entity may not necessarily have. Further Activity BasedBudgeting may cause more confusion rather than becoming a solution if not handledproperly. It is a very unique approach to look at things from a different perspective enablingbetterdecisionmakinghenceimprovingtheinternalprocesses withintheorganization.

Therefore Activity Based Budgeting is better suited to those who are willing to innovate andwant to be quick to make changes, identify and correct mistakes in a time-bound mannerwhich are those organizations that have a significant amount of resources and a resolution toexcelatanycost.

Activity-Based Budgeting – Steps

ABBfollows threemainsteps:

1. **Identifythecostdriversofvariousactivities.**

Forexample,thecostdriversforamanufacturingfacilitycanbe thetotal laborhoursandwages paid to employees.

2. **Projectthenumberofunitsrequiredwithineachcostdriver.**

Forexample,themanufacturingfacilitymayalwaysneedthreepeopleontheproductionline,translatingto 240 labor hoursper week.

3. **Calculatethecostperunitofactivityrelatingtothatcostdriver.**

Forexample,wagesforwarehouselaborcanbe$12perhour.

WhenisActivity-BasedBudgetingUsed?

Businessesmustanalyzetheirgoalsandrequirementstodeterminewhetheran ABBsystemwill make sense to implement. ABB is better suited to new businesses that lack historicalcostingdatathatmoreestablishedbusinesseshave.

For example, a more established retail business, such as Walmart, has made changes tooptimizetheirstrategyforprofitabilityovermanyyears.Theirprofitsaregoingtoremainatarelativelyevengrowth rate,andthey know exactlywhattheircostdrivers are.

On the other hand, a new start-up doesn’t have years of historical financial information attheir disposal. It may be worthwhile for the newer start-up to inspect each cost driver andtheircorrespondingactivitylevelstomakemoreaccuratefinancialprojections.

ZERO BASED BUDGETING

MEANING AND DEFINITION

Zero based budgeting in management accounting involves preparing the budget from the scratch with a zero-base. It involves re-evaluating every line item of cash flow statement and justifying all the expenditure that is to be incurred by the department.
Thus, zero-based budgeting definition goes as a method of budgeting whereby all the expenses for the new period are calculated on the basis of actual expenses that are to be incurred and not on the differential basis which involves just changing the expenses incurred taking into account change in operational activity. Under this method, every activity needs to be justified, explaining the revenue that every cost will generate for the company.

Contrary to the traditional budgeting in which past trends or past sales/expenditure are expected to continue, zero-based budgeting assumes that there are no balances to be carried forward or there are no expenses that are pre-committed. In the literal sense, it is a method for building the budget with zero prior bases. Zero-based budgeting lays emphasis on identifying a task and then funding these expenses irrespective of the current expenditure structure.

Zero Based Budgeting Example
Let us take an example of a manufacturing department of a company ABC that spent $ 10 million last year. The problem is to budget the expenditure for the current year. There are multiple ways of doing so:

1. The board of directors of the company decides to increase/decrease the expenditure of the department by 10 percent. So the manufacturing department of ABC Ltd will get $ 11 million or $ 9 million depending on the management's decision.
2. The senior management of the company may decide to give the department the same amount as it got in the previous year without hiring more people in the department, or increasing the production etc. This way, the department ends up getting $ 10 million.[adsense]
3. Another way is, as, against the traditional method, management may use zero-based budgeting in which the previous year's number of $ 10 million is not used for calculation. Zero-based budgeting application involves calculating all the expenses of the department and justifying each of these. This reflects the actual requirement of the manufacturing department of company ABC which may be $ 10.6 million.

HOW ZERO BASED BUDGETING IS DIFFERENT FROM OTHER METHODS

To have a clear understanding, it is necessary to understand the key differences between the other methods of budgeting like Activity Based Budgeting etc.

1. Zero Based Vs. Activity Based Budgeting
2. Zero Based Vs. Traditional Budgeting
3. Zero Based Vs. Incremental Budgeting

Difference between Zero-based Budgeting and Activity-based Budgeting

Following are discussed some fundamental differences between zero-based budgeting and activity-based budgeting;

1. The basis for the preparation of budget

Zero-based budgets are formulated right from the start, without taking into consideration last year's budget. Management of the organization does not need to look back on previous costs or business activities, they just need to focus on the current situation and upcoming year.

Under this approach, resources are allocated based on the needs and assumed costs of each department. On the contrary, activity-based budgeting also does not consider the previous year's analysis and budget, but the resources here are allocated majorly based on the efficiencies in business operations.

2. Profitability

Zero-based budgeting is based on justification given for each expense related to an activity performed. This does not determine the possible profitability of the business.

Whereas, activity-based budgeting adjusts the business activities with the objectives and goals of the company. This will help to know the potential profitability of the company.

3. Resource allocation

In zero-based budgeting, the activities of the business are ranked on the basis of their vitality. When the expenses incurred are justified, resource allocation is then taken place.

In contrast to this, in the case of activity-based budgeting, after justifying the cost drivers, resources are allocated to each department.

4. Connection to business objectives

In zero-based budgeting, the first step is to revalue all the programs of the company. Once the revaluation is done, resources are then allocated based upon that revaluation. Resources are firstly allocated to the program which will yield more than that one which will yield less.

While on the other side, activity-based budgeting allocates resources after analyzing the relationship that exists between business functions and business objectives. Resources here are allocated to only those business functions whose business objectives are in line with the objectives of the company.

5. Wasteful expenses

Zero-based budgeting reevaluates all the activities of the business each year and allocates money only to those activities which justify the expense to avoid unnecessary spending. Hence, by eliminating unnecessary activities, extra costs can be saved.

In activity-based budgeting, each function of the business is keenly examined keeping in view the prime objectives and goals of the company. It removes those functions that do not go parallel with any other function or with the objectives of the company and in this way it leads to further cost-saving.

2. Difference between Zero based budgeting and Traditional budgeting

BASIS FOR COMPARISON	TRADITIONAL BUDGETING	ZERO-BASED BUDGETING
Meaning	Traditional Budgeting alludes to a technique of preparing budget, that takes immediately preceding year's budget as a base.	Zero-based budgeting means a budgeting method, whereby whenever the budget is set, the activities are re-evaluated.
Focuses on	Previous level of Expenditure	New economic appraisal
Orientation	Accounting oriented	Decision or project oriented
Justification	Justification of current project is not required.	Justification of current and proposed projects is required, considering benefits and costs.
Justification Authority	Justification is given by top management for the particular decision unit	Justification is given by the manager for the particular decision unit.
Priority	Mainly to past level of spending,	Decision unit is divided into

BASIS FOR COMPARISON	TRADITIONAL BUDGETING	ZERO-BASED BUDGETING
	then to demand for inflation and new programs.	comprehensive decision packages, and ranked as per their relevance.
Clarity and Responsiveness	Lower	Comparatively higher
Approach	Routine Approach	Straight forward Approach

3. Zero Based Vs. Incremental Budgeting

Zero-based budgeting and Incremental budgeting are the two most commonly used methods of budgeting that are implemented by most of the companies. Both the methods are unique and are different from each other in many ways. Before going through the differences, let us understand the meaning of zero-based budgeting and incremental budgeting in brief.

Zero-based budgetingis a budgeting method where current year's budget is prepared from the scratch i.e. taking the base as zero. The old and the new activities of the business are ranked according to their importance and based on that, resources are allocated to each activity without considering the past budgets or achievements.

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Incremental budgeting is a budgeting method where current year's budget is prepared by making changes in the past year's budget. The changes are in the form of addition or reduction of expenses to last year's budget.Following points will highlight the differences between zero-based budgeting and incremental budgeting

1. Base for Budgeting

Zero-based budgeting is done considering the base as zero i.e. it is done without considering the budget of the previous year. For every financial period, a fresh budget is prepared from the scratch and resources allocated to each department are justified according to the expenses of that particular period. On the other hand, incremental budgeting is different from zero-based budgeting. In case of incremental budgeting, current year's budget is prepared by making changes in the budget of the previous year. In Incremental budgeting, the starting point for preparing budget is prior period's budget. Taking this as base, current period's budget is prepared.

2. Allocation of Resources

In zero-based budgeting, the budgets are prepared by allocating maximum resources to those activities which benefit the organization. The activities which are revenue generating and critical to the survival of the business, get the top most priority, Incremental budgeting is done without giving any priority to vital activities of the business and last year's budget is simply adjusted considering the inflation factor.

3. Wasteful Expenses

Since zero-based budgeting is prepared from the scratch, any resource to an activity would be allocated only after considering the risk reward ratio and cost benefit analysis. This eliminates all sorts of inefficiencies that are present in an activity. Thus it avoids any wasteful expense. In the case of incremental budgeting, wasteful expenses become the part of the budget. The inefficiencies present in the activities are mostly ignored and only the increase in cost forms the part of incremental budget.

4. Innovation

Zero-based budgeting promotes innovation in the business. As budgets are prepared right from start for each period, it forces the management to come up with innovative ideas to lower their costs so that they can justify the allocation of resources. On the other hand, incremental budgeting leads the company into a conservative mindset. As the budgets are almost same over the years, it does not promote any innovation in the business. Therefore, zero-based budgeting is dynamic in nature whereas incremental budgeting is conservative.

5. Time Consuming

Zero-based budgeting is a time consuming process mainly because the budget is prepared right from the start, which makes it a time consuming task. On the other hand, incremental budgeting is less time consuming method because they are prepared by taking previous year's budget as base and changes are done in the previous year's budget to meet the needs of current period.

6. Ease of Preparation

Zero-based budgeting requires justification for allocation of available resources, which can be known only after deep analysis and complex calculations. Thus, preparation of zero-based budgets is a complex task. Whereas, incremental budgets are easier to prepare as it does not involve any complex calculations and can be prepared by any department of the organization just by introducing the incremental changes.

7. Training

Managers require special skills and knowledge to prepare zero-based budgets. Only a qualified and well trained professional can prepare such budgets. On the other hand, incremental budgets are easy to prepare. They do not require any specialized knowledge or training to prepare the budget. Any department can make an incremental budget with ease.

Zero Based Budgeting Advantages

1. **Accuracy**: Against the regular methods of budgeting that involve just making some arbitrary changes to the previous year's budget, zero-based budgeting makes every department relook each and every item of the cash flow and compute their operation costs. This to some extent helps in cost reduction as it gives a clear picture of costs against the desired performance.
2. **Efficiency**: This helps in efficient allocation of resources (department-wise) as it does not look at the historical numbers but looks at the actual numbers
3. **Reduction in redundant activities**: It leads to the identification of opportunities and more cost-effective ways of doing things by removing all the unproductive or redundant activities.
4. **Budget inflation**: Since every line item is to be justified, zero-based budget overcomes the weakness of incremental budgeting of budget inflation.

5. **Coordination and Communication**: It also improves coordination and communication within the department and motivates employees by involving them in decision-making.

Although zero-based budgeting merits make it look like a lucrative method, it is important to know the disadvantages listed as under:

Zero Based Budgeting Disadvantages

1. **Time-Consuming:** Zero-based budgeting is a very time-intensive exercise for a company or a government-funded entities to do every year as against incremental budgeting, which is a far easier method.
2. **High Manpower Requirement:** Making an entire budget from the scratch may require the involvement of a large number of employees. Many departments may not have an adequate time and human resource for the same.
3. **Lack of Expertise**: Explaining every line item and every cost is a difficult task and requires training the managers.

   Conclusion: Zero-based budgeting aims at reflecting true expenses to be incurred by a department or a state [in the case of budget making by the government]. Although time-consuming, this is a more appropriate way of budgeting. At the end of the day, it is a company's call as whether it wants to invest time and manpower in the budgeting exercise to provide more accurate numbers or go for an easier method of incremental budgeting.

Steps in Zero Based Budgeting

Zero-based budgeting (ZBB) is a management tool used to control the costs in an organization. It is a budgeting method where current year's budget is prepared from the scratch i.e. taking the base as zero. The old and the new activities of the business are ranked according to their importance. Based on the priority, the available resources are allocated to each activity without considering the past budgets or achievements. For creating a Zero Based Budget, a step-wise approach is followed. Let us understand the Steps in Zero Based Budgeting in detail

Zero Based Budgeting Steps / Process

Identifying the Decision Units

First and foremost step involved in the zero-based budgeting process is, identifying the decision unit. A decision unit can be a single activity or a cluster of activities which can be independently and meaningfully identified. By independent, we mean an activity which is isolated and not overlapping other activities. So every decision unit will be separate from each other. An organization is divided into many decision units. Each cost center like marketing department, production department, human resource department, research, and development department, etc. acts as a decision unit. This step plays a significant role in justifying each item of expenditure in the budget. Manager of each decision unit has to give justification for the expenses and required budget allotment for his decision unit. The justification given by the manager should not be based on prior period budget or based on his decision unit's expenditure in the preceding year. Since zero-based budgeting is preparing the budget from the scratch, therefore the justification for the required budget should also be fresh.

Making Decision Packages

In this step, the decision units that were identified in the first step are broken down into smaller decision packages. These decision packages must be in line with the objectives of the organization. Each decision package acts as a standalone proposal which is appealing for allocation of funds. Each decision package defines the functions, activities, and operations of the proposal, the need for the proposal, economic and intangible benefits associated with the implementation of the proposal, loss of opportunity if funds are not allocated to the proposal, etc. A formal decision package must contain the following information:

a. The task for which the decision package is made
b. Goals and objectives of broader decision unit of which it is part of
c. Goals and objectives of the decision package
d. Analyzing the need for the task
e. Analysis of the technical and operational viability of the task
f. Analyzing the alternative course of action

a. Ranking Decision Packages

This is the third step involved in the zero-based budgeting process. In this step, all the decision packages within a decision unit and among various decision units are ranked in the order of their importance and priority. The logic behind prioritizing decision packages is to have an efficient allocation of scarce resources. Decision packages are ranked based on the cost-benefit analysis. While doing this, all the alternatives options are evaluated so as to select all the better and cost-effective options. Top management reserves all the rights to approve or reject a decision package. Only those decision packages are approved which help the organization to achieve its predetermined objectives. Management also ensures that the costing in each decision package is accurate and realistic.

b. Allocating Available Resources

This zero-based budgeting step an extension of the previous step. The decision packages that are ranked in the previous step are allocated funds in this step. So we can say that in this step funding decisions are made. The allocation of funds and other resources are based on the ranking of decision packages. So the most promising decision packages get better funding. This ensures optimum utilization of scarce resources.

c. Controlling and Monitoring

This is the last step in preparing zero-based budgeting. In this step, decision packages are monitored and evaluated for their performance and output. Measuring the performance of the decision packages helps the management to understand whether the allocation of resources is done accurately or not.

Conclusion: Since zero-based budgeting is a cost control technique, it is very important that the steps to implement zero-based budgeting are properly and wisely followed. There must be a detailed description of how the allocated funds would be used by each department and how the organization will benefit from it overall. Though steps involved in zero-based budgeting process are time-consuming, it provides the most systematic method of allocation of company’s funds.

RollingBudget

DefinitionRollingbudgetisacontinuousbudgetthat isupdatedregularlywhentheearlierbudgetperiodexpires, or we can say it is an extension of the current period budget. Rolling Budget is alsoknownasbudgetrollover.

Belowarethetypesof rollingbudgets

.

1–SalesBudget/RevenueBudget

SalesBudgettheveryfirstbudgetthatanenterprisehastopreparebecauseallotherbudgetsdepend on the revenue budget. In this budget, enterprises are forecasting their sales in termsof Value and Volume. In preparing the sales budget below, factors have been considered bythesalesmanager. The trend of the earlier period i.e., Average growth of last 5 – 6 yearsTotalMarketpotentialof thecomingyear Government PoliciesSeasonaldemands

#2–ProductionBudget

The production budget purely depends upon the sales budget. In the production budgetproductmanagerestimatesthemonthlyvolumeproductionaccordingtothedemandandalsomaintains the inventory level. In this budget, the cost of production is also estimated.

#3–OverheadBudget

In this budget, enterprises are estimating the cost of indirect material, indirect labor,operationalcost likerent,electricity,water,traveling,andmanyothers.Theoverheadbudgetisdividedintotwopartsoneisfixedoverhead,andoneisvariableoverhead.Itisalsoknownastheexpensebudget.

#4–FinancialBudget

In the financial budget, the enterprise has to forecast the requirement of funds for running thebusiness,whetheritislongtermorshortterm.Inthisbudget,thecompanyisalsoplanningtoinvest theirexcesscashinthatmannersothat theycanget amaximum return,orifthemoney is required for business, then they can pull out that money from the investment easily.

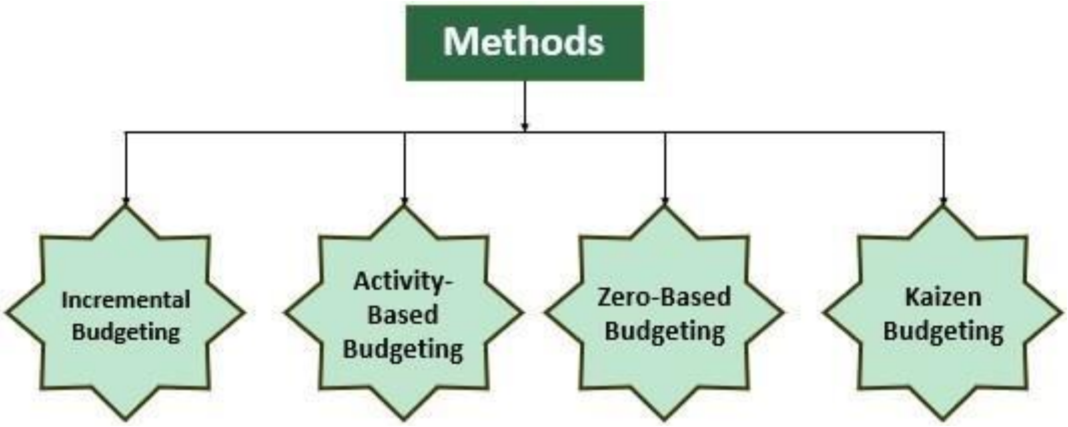
#5– CapitalExpenditureBudget

It contains forecasting of capital expenditurelike expenditure on Plant & Equipment,Machinery,Land &building, etc.

#6–MasterBudget

Amasterbudgetisasummaryofalltheabovebudget,whichisverifiedbytopmanagementafter taking inputs from various functional heads. It also shows the profitability of thebusiness.

BelowarethemethodsofRolling Budgeting



#1–IncrementalBudgeting

In this method of incremental budgeting, the budget is prepared by adding or subtracting acertain percentage in last year’s budget based on actual figures for last year to ascertain thecurrentyear budget. Itisatraditionalbudgeting.

#2–Activity-BasedBudgeting

Activity-Based budgetingis done for each activity that needs to perform to achieve thebusinessgoalandmakeplans toreducethecostofactivitysothatprofitcanbemaximized.E.g., If the company sets a target of $ 1000 Million sales, then the company has to firstidentifythoseactivitieswhichneedto performfor achievingthis target.

#3–Zero-BasedBudgeting

Zero-Based budgetingwill start from zero, which means there is no history of anydepartment, activity, expense head, and revenue. Zero base budgeting is prepared on theinputs given by each activity manager with their experience and justification. This method ofbudgetingis used for costcontrolorassessing thepotentialsavingofcost.

#4–KaizenBudgeting

Aggressive and innovative organizations use this method of budgeting. It means continuousimprovementintheirefficiency,quality,andproductivity.

Belowis theexampleofarollingbudget.

Youcandownloadthis RollingBudgetExceltemplatehere–RollingBudgetExceltemplateBelow is the rolling budget of Wal-Mart Inc for the year 2019, where the company ispreparing a rolling budget for each quarter. This rolling budget below points has beenconsideredinthepreparation ofthebudget.

AssumedValueandVolumegrowthatarateof10%foreachquarter;

Direct Material and Direct labor are the variable costswhich directly related to the productionoffinished goods.

Variableoverheadalsodependsontheproductionlikefreightexpenses.

Fixedoverheads arenotdependentuponproduction.Therefore,itis thesameforallthefourquarters,likeRentexpenses.

Walmart Inc for the Year 2018				
Particulars	**Q1**	**Q2**	**Q3**	**Q4**
Volume	100000	110000	121000	133100
Sales/Revenue	$5,000	$5,500	$6,050	$6,655
Direct Material	$1,500	$1,620	$1,750	$1,890
Direct Labour	$800	$880	$968	$1,065
Variable Overhead	$500	$550	$605	$666
Fixed Overhead	$300	$300	$300	$300
Profit	**1900**	**2150**	**2427**	**2735**

TheactualresultsofQ1havebeenreleased.Below isthevarianceanalysis oftheActualBudget.
Below are the observations of Variance Analysis–VolumeandValuehaveachieved105%oftheBudget.
Direct material and direct labor costshave changed according to the cost of goods sold.Variable Overhead has increased by 1.43% because the budgeted variable overhead was 10%ofsales, whereas actualvariableoverheadcomes11.43% ofsales.
Actual FixedOverheadwasthesameasbudgeted.
ProfitMarginhas beenreducedby1.62%becauseoftheincreaseinvariableoverhead.

Onthebasisofactualperformance,thecompanycanmodifythebudgetofnextquarterifmanagementbelieves thatthesamepatternwillcontinueforother quarters also.

Wal-mart Inc Variance Analysis of Q1

Particulars	Budget	Actual	Variance (Actual - Budget)
Volume (In Nos.)	100000	105000	5000
Sales/Revenue	5000	5250	250
Direct Material	1500	1560	60
Direct Labour	800	880	80
Variable Overhead	500	600	100
Fixed Overhead	300	300	0
Profit	**1900**	**1910**	**-**
Profit Margin	**38.00%**	**36.38%**	**-1.62%**

AdvantagesofRollingBudget

- Rollingbudgetdoes notrequiremoretimebecauseitisjustanextensionoftheearlierbudgetwith necessary changes.It**saves time.**
- Inarollingbudget,itis easytochangethebudgetbecauseofanyunexpectedeventsoccur.Itis**flexible**
- Inthis budget,itiseasytoassess theactualperformanceagainstbudget.Itis easily **measurable**
- RollingBudgetbringsbetterunderstanding,responsibility,andobjectivesbetween employees of thecompany.Itbuildsco- ordination
- Therollingbudgethelpsinfindingthestrengthandweaknesses oftheorganization,andaccordingly, stepscanbetaken toremovetheweakness.

DisadvantagesofRollingBudget

- Rollingbudgetrequires arobustsystemandskilledmanpower.
- Therollingbudgetcreatesconfusionanddisturbstheemployeebecauseofconstantchanges.
- Rollingbudgetisnotadvisableforthoseorganizationswhereconditions arenotchangingfrequently.
- Ifthetargetsetsinbudgetsaredifficulttoachieve,thenitdemotivatedtheemployeeof organizations.
- Itisaverycostlyaffairbecauseitrequiresadditionalmanpowerforregularupdatingofrolling budgetandanalysisof actualperformancevs. budget.

Rolling budget is a continuous process of budgeting where budget is prepared quarterly/half-yearly /Early on the basis of the last budget. In rolling budget assessment is happening at theendofeachbudgetperiod.Rollingbudgetgivesclearunderstandingamongemployeesaboutthe business objective and what to do for achieving the objective. For a successful budget, itis vital that information taken for budget preparation is correct; otherwise, it will give anegativeimpactonthebusinessas wellasemployees.

Advantages of rolling forecasts	Disadvantages of rolling forecasts
• There is a focus on the drivers of resources • Less detail • Can adapt to short-term changes in the market • Less manipulation because there are no fixed targets • Removes the 'spend it or lose it' mindset	• Not everyone understands the drivers of resources • Can demotivate employees as they are constantly working on the revision of budgets • Very time-consuming • Can create uncertainty with the budgets constantly changing

Flexible budget

Flexible budget is a budget that is mostly used as **a static budget**and basically changes withthechangesoccurringinthevolumeoractivityheldinproduction,alsohelpfulforincreasingth e manager's efficiency and effectiveness because it is set to benchmark for the actualperformanceof thecompany.
Itis usefulforbothplanningpurposes andcontrolpurposes andis generallyusedto estimate factory costsand operating costs. A flexible budget is much more realistic than fixedbudgets sinceitgivesemphasis oncostbehavior atdifferentlevels of activity.

When preparing a Flexible budget, managers are forced to consider the different scenariosand their responses to them. Thus, for a number of different situations, managers will havecalculated their costs and revenues. If an unexpected event does occur, changing the level ofactivity,themanagementwillbebetterprepared.
Budgetary controlis the comparison of the actual results against the budget. Where the actuallevel of activity is different from that expected, comparisons of actual results against a fixedbudgetcan givemisleading results.
Thesebudgetsaredifferentindifferent levelsofactivities,whichfacilitate theascertainmentsoffixation ofcost, sellingprices, and tenderingofQuotations.

In the case of a typical business, if it is newly started, it becomes tough to predict the demandfortheproducts/servicesaccurately.But thiscanbedealtwithbyputtingaFlexiblebudgetinplace.
In the case where the business totally depends upon Mother Nature, i.e., rain, dry and cold,the flexible budget helps the business to estimate there output considering the good oradverse weather conditions. For example, agricultural activities, wool-based industries, etc.Incaseofabusiness whichcarries theirentireworkwiththehelpoflaborers.Thelaborers'availability is a critical factor for these types of companies. Therefore it helps themanagement to accurately know about their productivity and output, for example, jutefactories,handloomindustries, etc.

Itcanhelpinsales,costs,andprofitcalculationatdifferentlevels ofoperatingcapacity.It helps to determine the quantity/amount of output to be produced to help the companyachievethedesired profitlevel.
Themostsignificantadvantageofthisbudgetis thatithelpsthemanagementofthecompanytodeterminetheproduction levelindifferentmarketandbusiness conditions.
It also helps in the reclassification of various levels of budgeted costs along with sales so thatmanagers caneasilyidentify theprofitareas and thusmayactaccordingly.
Thisbudgetcanbere-castedonthebasis oftheactivitylevels.Itis notrigid.

This budget requires skilled workers to work on it. The availability of skilled workersbecomesachallengefortheindustry.Therefore,manyIndustriesandcompaniescan'tuset his budgetdespiteitsenormousadvantages.

It depends upon the proper accounting disclosures. The result cannot come out to be correct ifthere are any mistakes in the Books of Accounts provided. A flexible budget depends verymuch upon a forecast of the past business performance. So the historical information usedneeds to beaccurate.
Itis anexpensiveaffair.Skilledworkersaretobeappointed,andtheyshouldbepaidfortheirservices.
It’s quite a laborious task too. Thus many companies and industries can’t afford tohavethisbudget.

It also depends upon the factors of the production, which are not in the hands of themanagement. Therefore the predictions can be inaccurate due to these conditions.Variance Analysis provides useful information as each cost is analyzed according to itsnature.Thus itbecomes difficultfortheexperts to prepareFlexiblebudgets.

A flexible budget can be found suitable when the business conditions are constantlychanging. Accurate estimates are expected from if the resources are available with theexperts.Abigorganizationshouldhireexperts topreparea flexiblebudgetandtohelptheirorganization make a clear vision about what output should be produced to achieve thetargetedprofit

TypesofFlexibleBudget

Therearethree common typesofflexiblebudgetsasfollows:

- **BasicFlexibleBudget:** Inthisbudget,thoseexpensesthatvarywithrevenueareexpressedasapercentage ofsales orascostperunitandadjustedastheoutputlevelchanges.
- **Intermediate Flexible Budget:** There are some expenses that do not vary with revenue,instead, they vary based on some other measure such as electricity expense based on thenumber of units consumed. An intermediate flexible budget takes into account changes inexpensesbased onsuchotheractivity measures aswell.
- **Advanced Flexible Budget:** Further there are expenses that remain the same in a certainlevel of activity and beyond such a level they change. An advanced flexible budget takes intoaccount thechangeinexpenses basedonthechangeinsuchlevels.

ImportanceofFlexibleBudget

A flexible budget is an important tool for management. It helps in setting the expected costs,revenues, and profitability of the business. Further, since **the flexible budget is not rigid**, it can beadjusted according to the actual activity level at the end of the accounting period and used forvariance analysis. The management can **determine the performance of various departments** basedonvariancesdetermined. Ithelpsinfixing accountability towardsthecompany.

Advantages

Someoftheadvantagesaregivenbelow:

- Theflexiblebudgetcanbeusedforthedeterminationof**budgetedsales,costs,andprofits** atdifferentactivitylevels.
- It helps the management to **decide the level of output to be produced** in order to generateprofits for the business based on budgeted cost at different activity levels and budgetedsales.
- It helps in variance analysis after **comparison with the actual results** and measure theperformanceofvariousdepartments.
- This budget can be prepared even if the activity level is not decided since fixed costs arealreadyknowntoeverydepartmentandvariablecostscanbeapprovedasapercent

ageofsalesperunit.

Disadvantages

Someofthedisadvantagesaregivenbelow:

- It is quite difficult to prepare and requires experts for its preparation. It is for this reasonthat manycompanies donot prepare thisbudget.
- Somecostsarenotfullyvariableandconsist ofafixedportionaswell.Itrequirescareful **analysisofcosts**andincorrect classificationofcostscanprovideinaccurateresults.
- Therearemanycompanieslikeserviceindustries wherevariablecostsdon’thaveamajor roletoplayandsuchcompaniesdonotrequireaflexiblebudget.
- The factors of production are prone to certain limitations and are not in human control.Makingapredictionbased ontheseresources canbedifficult.

Conclusion

A flexible budget is useful for manufacturing industries where costs change with a change in activitylevel. To make accurate budgets, companies must involve experts so that there is less scope for errorandvariance analysisisimproved.

WhatIs ProjectBudgeting?

Project budgeting is determining the total amount of money that is allocated for the project touse. The project budget has been estimated by the project manager and/or the projectmanagement team. The budget is an estimate of all the costs that should be required tocomplete the project. We use the words 'should be' because if a project is poorly estimated,thentheprojectwillrequiremorecosts.

There are four ways for the project manager to estimate the project's budget. The fourestimating techniques that a project manager can use are analogous, parametric, top-down,andbottom-up.We'lldiscusseachofthesetechniquesandlookatanexampleofeachoneinuseto seehowthey allwork.

AnalogousEstimating

Analogous estimating is based off an analogy, or a similar project to the project that you andyour team are undertaking. This type of estimating can be used when there's limitedinformation on the upcoming project and a fast estimate is needed. The project manager willlook at another project of similar scope and schedule and then modify the new project budgetfor any differences in scope, schedule, quality, or fiscal years. This isn't as accurate a methodofestimating assomeoftheothers.

Let's say that Dave is the project manager for a drone company. He's just started at thecompanyandhasbeenhandedaprojecttoproduceanewquadcopterdrone.Theprojectofferneeds to be turned in by the end of the week, and Dave has never run a project for aquadcopter. Dave looks through project files and finds a double copter project that lookssimilar in scope, schedule, and quality. There are a few differences in the qualityrequirements.Davetakes theinformationtohisproductmanageranddiscussesitwithhim. Theproductmanageragreesthatthetwoprojectsare similarenoughinnature,andthebudgetcan be updated for the additional costs. Dave makes the changes, and the project is awarded.

ParametricEstimating

Parametric estimating is an estimating technique that determines the cost of a unit andduration and then scales the result based on how many are needed. Steve is the projectmanager for a rum distillery. Steve has been assigned the task of determining a budget for1000gallons ofpremiumrum.Steveknows thathis stillcanhold2000gallons ofwashandthatafter10 hours of distilling,hewillhaveabout250 gallons of premiumrum. SoSteve takes 1000 gallons needed and divides by 250 gallons per run and determines he will need todistillfourtimes.Stevethentakesthecostofonerunandmultiplies byfourandgetsthetotalcost.

Top-DownEstimating

Top-down estimating is an estimating approach that begins with the final product and thenworksbackwardstobreaktheactivitiesdownintosmallerandsmalleractivities.Thistypeofestimating works incredibly well when the project manager has a big picture mentality andcan see the vision of the project coming together. The most prolific benefit of this type ofestimating is that major tasks are identified quickly and then as the project develops will berefined by the team. The largest negative to this type of estimating is that details can beoverlooked. This can also be considered a type of analogous estimating, in that the projectmanagerwillusescalability when determining aprojectbudget.

OPERATING BUDGET

The **operating budget** contains the expenditure and revenue generated from the dailybusiness functions of the company. The operating budget concentrates on the operatingexpenditures, including cost of produce sold in the market or popularly known as cost of soldgoods (COGS) and the revenue or income. COGS is the cost of direct labor and directmaterials thataretiedtoproduction.

The operating budget also depicts the overhead and administration costs tied directly tomanufacturingthegoods andprovidingservices.However,theoperatingbudgetwillnotcontaincapitalexpendituresandlong-termloans.

What is an Operating Budget?

Definition: An operating budget portrays a company's expenses, expected costs, andestimated income, considering the quarterly or the annual performance. Accountantscompletetheoperatingbudgetbeforetheaccountingperiodstartsinordertoinclude incomeandcostprojections.

WhatDoesOperatingBudgetMean?

The challenging part of completing an operating budget is to properly estimate the historicaldataandfactorintheprobabilityofdifferentmarketvariables.Anoperatingbudget musttakeinto account historical sales performance, current trends in the industry or the sector,seasonality,newproductsexpectedtobelaunchedandcompetitiveforces.Often,firmscreatemore than one operating budget aiming to anticipate a potential decline in revenues or a newproductlaunch thatcould boostprofitability.

Let'slookatanexample.Example

Aneffectiveoperatingbudgetprovidesdetailsonthepriceandtheexpectedproductvolume to estimate total sales. Therefore, a key component of this budgetis sales, followedbyvariablecosts,fixedcosts, interest,and depreciation.

Costs include raw materials and finished goods ready for sale, salaries, wages, utilities, rentor mortgage, car maintenance and service, postage, cleaning, transportation costs, travelexpenses, office supplies, marketing/advertising expenses, insurance, professional servicesandso on. Interestincludes Intereston bank loans and/or overdraftfees.

Once the budget is complete, accountants prepare a summary to demonstrate theirprojections.Often,thereisacolumnforactualcostsinordertocompareprojectionstoactualrevenues andexpenses.Normally,managers arecalledintoanswerquestions suchas:

- Aresalesgoalsmetorexceeded?

- Arecostprojectionsmetorexceeded?
- Arethereincurredexpensesunaccountedfor?

Such information helps finance managers to perform a better planning of future sales andcosts and proceed with effective business decision-making. For instance, if the costprojectionsareexceeded,itmakessensetoreviewbothvariableandfixedcoststofindout whythisishappening.

Whatis theoperatingbudgetand whatareits components?

An**operatingbudget**consistsofallrevenues.Inaccounting,theterms"sales"and"revenue"can be, and often are, used interchangeably, to mean the same thing. Revenue does notnecessarilymean cash receivedandexpenses.

Then,whatarethe5maincomponentsofanoperatingbudget?

Theoperatingbudgetconsistsofabudgetedorforecastedincomestatements,whichare supported by anumberof schedules:

- SalesBudget.
- ProductionBudget.
- DirectMaterialsPurchasesBudget.
- DirectLaborBudget.
- OverheadBudget.
- EndingFinishedGoodsInventoryBudget.
- CostofGoods SoldBudget.

Furthermore, how do you prepare an operating budget? **Creating an operating budget is afairlysimpletaskforany businessowner.**

1. Identifyexpenses forthemonth.Lookateveryexpenditurefortheentirebusiness.
2. Identifyproductionforthemonth.
3. Divideexpensesbyproduction.
4. Determinerevenue.
5. Subtractthecostper unitfromtherevenueperunit.

A budget helps an organization allocate the resources of the company to differentdepartments and activities and manage the cash flowsof the business in an effective way.Therearemany types of budgets. Oneofthemisafinancialbudget.
First,let’s trytounderstandthetermabitbetter.

WHATISAFINANCIALBUDGET?

A financial budget in budgetingmeans predicting the income and expenses of the business ona long-term and short-term basis. Accurate projections of cash flow help the business achieveits targetsin therightway.

Financial budget preparation includes a detailed budget balance sheet, cash flow budget, thesources of incomes and expenses of the business, etc. The evaluation of incomes andexpenses is done on a monthly, quarterly, half-yearly or annual basis, depending on thesuitability of the organization. A financial budget is a very powerful tool to achieve the long-term goals of any business. Importantly, it also keeps the shareholdersand other members oftheorganization updatedaboutthefunctioning of thebusiness.

WHYPREPAREAFINANCIALBUDGET?

Organizations prepare a financial budget to manage the cash flows in a better way. Thisbudget gives the business better control and provides a more efficient planning mechanism tomanagetheinflowsandoutflows.Topreparea financialbudget,itisimportanttopreparethe operating budgetfirst. With the help of the operating budget, the organization can predictthe sales and production expenses. Therefore, the organizations prepares a financial budgetonlyafterplanningthedifferentfinancingactivitiesintheoperatingbudget.

DIFFERENT SECTIONS OF A FINANCIAL BUDGETCASHBUDGET

The cash budgetcontains information on the inflows and outflows of the business. On theother hand, the cash flow of the business continues changing and with that, the cash budgetshould also change. Making a cash budget is a dynamic process, not a static one. There mustbe an immediate reflection of any change in the cash flow in the cash budget of the business.BUDGETEDBALANCESHEET

The budgeted balance sheet comprises many other budgets. The major component of thisbudgetincludestheproduction budgetand itsassociatedbudgets.

CAPITALEXPENDITUREBUDGET

As the name suggests, the capital expenditurebudget relates to expenses related to plant andmachineryoranycapitalassetofthebusiness. Thisbudgetdeterminestheexpenses that would be incurred if an existing plant is replaced or any new machinery is bought. Factorslike depreciation, cost of the plant, life of the machinery, etc. are taken into account whenpreparingthecapitalexpenditurebudget.

Let’s takeacloserlookatthefinancialbudgetpreparation.

FINANCIALBUDGETPLAN

Thefinancialbudgetplaniscomprisedofthefollowing steps:

- Calculatetheexpectedinflow
- Calculate theexpectedoutflow
- Setthetargets
- Dividetheexpensesintodifferentcategories
- Keeptrackofcomponents inthebudget
- Setuptheledger

The above points give some idea of how a financial budget plan is set. Differentorganizations may take different factors into consideration while preparing the budget.However, theabovepointswillformpartof any budgetplan.

Conclusion

The financial budget provides a blueprint for the business to move forward. It addresses notonly the financial aspects of the business, but also checks the operational efficiency. Theextra expenses are cut by emphasizing cost reduction and improving the market share. Interms of financial budgets, the organization is well prepared to meet the long-term and short-term expenses. A good financial budget helps in achieving the goals and objectives of thebusinessin theshortestpossiblespanoftime.

Capital Budgeting

Meaning :

Capital budgeting is the process a business undertakes to evaluate potential major projects or investments. Construction of a new plant or a big investment in an outside venture are examples

of projects that would require capital budgeting before they are approved or rejected.
As part of capital budgeting, a company might assess a prospective project's lifetime cash inflows and outflows to determine whether the potential returns that would be generated meet a sufficient target benchmark. The capital budgeting process is also known as investment appraisal.

Methods of Capital Budgeting

Ideally, businesses would pursue any and all projects and opportunities that enhance shareholder value and profit. However, because the amount of capital or money any business has available for new projects is limited, management uses capital budgeting techniques to determine which projects will yield the best return over an applicable period.

Although there are numerous capital budgeting methods, below are a few that companies can use to determine which projects to pursue.

- **Discounted Cash Flow Analysis**

Discounted cash flow (DCF) analysis looks at the initial cash outflow needed to fund a project, the mix of cash inflows in the form of revenue, and other future outflows in the form of maintenance and other costs.

- **Present Value**

These cash flows, except for the initial outflow, are discounted back to the present date. The resulting number from the DCF analysis is the net present value (NPV). The cash flows are discounted since present value states that an amount of money today is worth more than the same amount in the future. With any project decision, there is an opportunity cost, meaning the return that is foregone as a result of pursuing the project. In other words, the cash inflows or revenue from the project needs to be enough to account for the costs, both initial and ongoing, but also needs to exceed any opportunity costs.

With present value, the future cash flows are discounted by the risk-free rate such as the rate on a U.S. Treasury bond, which is guaranteed by the U.S. government. The future cash flows are discounted by the risk-free rate (or discount rate) because the project needs to at least earn that amount; otherwise, it wouldn't be worth pursuing.

- **Cost of Capital**

Also, a company might borrow money to finance a project and as a result, must at least earn enough revenue to cover the cost of financing it or the cost of capital. Publicly-traded companies might use a combination of debt–such as bonds or a bank credit facility–and equity–or stock shares. The cost of capital is usually a weighted average of both equity and debt. The goal is to calculate the hurdle rate or the minimum amount that the project needs to earn from its cash inflows to cover the costs. A rate of return above the hurdle rate creates value for the company while a project that has a return that's less than the hurdle rate would not be chosen.

Project managers can use the DCF model to help choose which project is more profitable or worth pursuing. Projects with the highest NPV should rank over others unless one or more are mutually exclusive. However, project managers must also consider any risks of pursuing the project.

- **Payback Analysis**

Payback analysis is the simplest form of capital budgeting analysis, but it's also the least accurate. It's still widely used because it's quick and can give managers a "back of the envelope" understanding of the real value of a proposed project.

Payback analysis calculates how long it will take to recoup the costs of an investment. The payback period is identified by dividing the initial investment in the project by the average yearly cash inflow that the project will generate. For example, if it costs $400,000 for the initial cash outlay, and the project generates $100,000 per year in revenue, it'll take four years to recoup the investment.

Payback analysis is usually used when companies have only a limited amount of funds (or liquidity) to invest in a project and therefore, need to know how quickly they can get back their investment. The project with the shortest payback period would likely be chosen. However, there are some limitations to the payback method since it doesn't account for the opportunity cost or the rate of return that could be earned had they not chosen to pursue the project.

Also, payback analysis doesn't typically include any cash flows near the end of the project's life. For example, if a project being considered involved buying equipment, the cash flows or revenue generated from the factory's equipment would be considered but not the equipment's salvage value at the end of the project. The salvage value is the value of the equipment at the end of its useful life. As a result, payback analysis is not considered a true measure of how profitable a project is but instead, provides a rough estimate of how quickly an initial investment can be recouped.

- **Throughput Analysis**

Throughput analysis is the most complicated form of capital budgeting analysis, but also the most accurate in helping managers decide which projects to pursue. Under this method, the entire company is considered as a single profit-generating system. Throughput is measured as an amount of material passing through that system.

The analysis assumes that nearly all costs are operating expenses, that a company needs to maximize the throughput of the entire system to pay for expenses, and that the way to maximize profits is to maximize the throughput passing through a bottleneck operation. A bottleneck is the resource in the system that requires the longest time in operations. This means that managers should always place a higher priority on capital budgeting projects that will increase throughput or flow passing through the bottleneck.

Capital Budgeting Techniques/ Methods (As above)

To assist the organization in selecting the best investment there are various techniques available based on the comparison of cash inflows and outflows. These techniques are:

1. Payback period method

In this technique, the entity calculates the time period required to earn the initial investment of the project or investment. The project or investment with the shortest duration is opted for.

2. Net Present value

The net present value is calculated by taking the difference between the *present value of cash inflows* and the *present value of cash outflows* over a period of time. The investment with a positive NPV will be considered. In case there are multiple projects, the project with a higher NPV is more likely to be selected.

3. Accounting Rate of Return

In this technique, the total net income of the investment is divided by the initial or average investment to derive at the most profitable investment.

4. Internal Rate of Return (IRR)

For NPV computation a discount rate is used. IRR is the rate at which the NPV becomes zero. The project with higher IRR is usually selected.

5. Profitability Index

Profitability Index is the ratio of the present value of future cash flows of the project to the initial investment required for the project. Each technique comes with inherent advantages and disadvantages. An organization needs to use the best-suited technique to assist it in budgeting. It can also select different techniques and compare the results to derive at the best profitable projects.Conclusion

Capital budgeting is a predominant function of management. Right decisions taken can lead the business to great heights. However, a single wrong decision can inch the business closer to shut down due to the number of funds involved and the tenure of these projects.

Objectives of Capital budgeting?

Capital expenditures are huge and have a long-term effect. Therefore, while performing a capital budgeting analysis an organization must keep the following objectives in mind:

1. Selecting profitable projects

An organization comes across various profitable projects frequently. But due to capital restrictions, an organization needs to select the right mix of profitable projects that will increase its shareholders' wealth.

2. Capital expenditure control

Selecting the most profitable investment is the main objective of capital budgeting. However, controlling capital costs is also an important objective. Forecasting capital expenditure requirements and budgeting for it, and ensuring no investment opportunities are lost is the crux of budgeting.

3. Finding the right sources for funds

Determining the quantum of funds and the sources for procuring them is another important objective of capital budgeting. Finding the balance between the cost of borrowing and returns on investment is an important goal of Capital Budgeting.

Capital Budgeting Process

The process of capital budgeting is as follows:

1. Identifying investment opportunities

An organization needs to first identify an investment opportunity. An investment opportunity can be anything from a new business line to product expansion to purchasing a new asset. For example, a company finds two new products that they can add to their product line.

2. Evaluating investment proposals

Once an investment opportunity has been recognized an organization needs to evaluate its options for investment. That is to say, once it is decided that new product/products should be added to the product line, the next step would be deciding on how to acquire these products. There might be multiple ways of acquiring them. Some of these products could be:

- Manufactured In-house
- Manufactured by Outsourcing manufacturing the process, or
- Purchased from the market

3. Choosing a profitable investment

Once the investment opportunities are identified and all proposals are evaluated an organization needs to decide the most profitable investment and select it. While selecting a particular project an organization may have to use the technique of capital rationing to rank the projects as per returns and select the best option available. In our example, the company here has to decide what is more profitable for them. Manufacturing or purchasing one or both of the products or scrapping the idea of acquiring both.

4. Capital Budgeting and Apportionment

After the project is selected an organization needs to fund this project. To fund the project it needs to identify the sources of funds and allocate it accordingly. The sources of these funds could be reserves, investments, loans or any other available channel.

5. Performance Review

The last step in the process of capital budgeting is reviewing the investment. Initially, the organization had selected a particular investment for a predicted return. So now, they will compare the investments expected performance to the actual performance. In our example, when the screening for the most profitable investment happened, an expected return would have been worked out. Once the investment is made, the products are released in the market, the profits earned from its sales should be compared to the set expected returns. This will help in the performance review.

Advantages and Disadvantages of Capital budgeting

Capital budgeting revolves around capital expenditures which include large inflow and outflow of money to finance investment projects. It is a process by which a company decides whether it should invest in a project or not. We should understand the advantages and disadvantages of capital budgeting as a technique to have a correct interpretation of results thereof.

Capital budgeting is largely used for long-term investment opportunities whose tenure is more than a year and fetches returns over several subsequent years. These investment opportunities could be for new plant & machinery, factory facility, construction of a building, etc. Capital budgeting is a very important tool in finance but it comes with its own merits and demerits.

Advantages of Capital Budgeting:

- Capital budgeting helps a company to understand the various risks involved in an investment opportunity and how these risks affect the returns of the company.
- It helps the company to estimate which investment option would yield the best possible return.
- A company can choose a technique/method from various techniques of capital budgeting to estimate whether it is financially beneficial to take on a project or not.
- It helps the company to make long-term strategic investments.
- It helps to make an informed decision about an investment taking into consideration all possible options.
- It helps a company in a competitive market to choose its investments wisely.
- All the techniques/methods of capital budgeting try to increase shareholders wealth and give the company an edge in the market.
- Capital budgeting presents whether an investment would increase the company's value or not.
- It offers adequate control over expenditure for projects.
- Also, it allows management to abstain from over investing and under-investing.

Disadvantages of Capital Budgeting:

- Capital budgeting decisions are for long-term and are majorly irreversible in nature.

- Most of the times, these techniques are based on the estimations and assumptions as the future would always remain uncertain.
- Capital budgeting still remains introspective as the risk factor and the discounting factor remains subjective to the manager's perception.
- A wrong capital budgeting decision taken can affect the long-term durability of the company and hence it needs to be done judiciously by professionals who understands the project well.

Conclusion

Despite its limitations as given above, capital budgeting still remains a necessary exercise for a company before it invests in any long-term project. Capital Budgeting allows the management to choose wisely amongst the several investment opportunities available in the market.

Pro Forma income

Pro forma is Latin for "as a matter of" or "for the sake of form." It is used primarily in reference to the presentation of information in a formal way, assuming or forecasting pieces of information that may be unavailable.

In most cases, pro forma documentation is used to present a reasonable representation of what an anticipated occurrence will look like, often a cash expense for shipments. Pro forma statements show the underlying assumptions about the shipment and what the documentation will look like if the assumptions are proven true.

The presumptions about hypothetical conditions that occurred in the past and/ or may occur in the future are used to project the most likely outcome for corporate results in reports known as pro forma financial statements. For instance, a budget is a variation of a pro forma financial statement as it anticipates, based on certain assumptions, the inflow of projected revenues and the outflow of funds for a defined future period, usually a fiscal year.

Essentially, pro forma statements present expected corporate results to outsiders and often feature in investment proposals. A pro forma income statement is a financial statement that uses the pro forma calculation method, mainly to draw potential investors' focus to specific figures when a company issues an earnings announcement. Companies may also design pro forma statements to assess the potential earnings value of a proposed business change, such as an acquisition or a merger.

Investors should be aware that a company's pro forma financial statements may hold figures or calculations that are not in compliance with generally accepted accounting principles (GAAP). Sometimes, pro forma figures differ vastly from those generated within a GAAP framework, as pro forma results will make adjustments to GAAP numbers to highlight important aspects of the company's operating performance.[1]

Types of Pro Forma

In financial accounting, pro forma refers to a report of the company's earnings that excludes unusual or nonrecurring transactions. Excluded expenses could include declining investment values, restructuring costs, and adjustments made on the company's balance sheet that fix accounting errors from prior years.

In managerial accounting, meanwhile, accountants design financial statements prepared in the pro forma method ahead of a planned transaction such as an acquisition, merger, change in capital structure, or new capital investment. These models forecast the expected result of the proposed transaction, with emphasis placed on estimated net revenues, cash flows, and taxes. Managers are then able to make business decisions based on the potential benefits and costs.

History of Pro Forma

Pro forma financials in the United States boomed in the late 1990s when dot-com companies used the method to make losses appear like profits or, at a minimum, to reveal much greater gains than indicated through U.S. GAAP accounting methods.

The U.S. Securities and Exchange Commission (SEC) responded by cautioning that publicly traded companies report and make public U.S. GAAP-based financial results as well. The SEC also clarified that it would deem using pro forma results to grossly misconstrue GAAP-based results and mislead investors fraudulent and punishable by law.[1]

Using pro forma results to grossly misconstrue GAAP-based results and mislead investors is deemed by the U.S. Securities and Exchange Commission (SEC) to be fraudulent and punishable by law.
Pro Forma Example
Today, there are several places where you can find a boilerplate template for generating a pro forma financial statement, such as the income statement, including Excel spreadsheets that will automatically populate and calculate the correct entries based on your inputs.

Still, you may want to know how to create a pro forma income statement by hand. The steps are:

1. Calculate the estimated revenue projections for your business, a process called pro forma forecasting. Use realistic market assumptions and not just numbers that make you or your investors feel optimistic. Do your research and speak with experts and accountants to determine what a normal annual revenue stream is, as well as asset accumulation assumptions. Your estimates should be conservative.
2. Estimate your total liabilities and costs. Your liabilities include loans and lines of credit. Your costs, on the other hand, will include items such as lease expense, utilities, employee pay, insurance, licenses, permits, materials, taxes, etc. Be sure to put a great deal of thought into each expense and keep your estimates realistic.
3. To create the first part of your pro forma, you'll use the revenue projections from Step 1 and the total costs found in Step 2. This portion of the pro forma statement will project your future net income (NI).
4. Estimate the cash flows. This portion of the pro forma statement will identify the net effect on cash if the proposed business change is implemented. Cash flow differs from NI because, under accrual accounting, certain revenues and expenses are recognized prior to or after cash changes hands.

What They Are and Why You Need Them

So your business is chugging right along, and you've had great financial results for years. You have no problem proving to a potential investor or lender that your company is doing well. But…you've got big things in the works. Maybe you're selling off part of the company, or acquiring another. Now you need an accounting tool that will help you see how the numbers will change with this transition.

But generally accepted accounting principles (known as GAAP) only look at historical financial statements and don't help you predict the future. Short of having a crystal ball, pro forma financial statements can help you predict things like net income and gross profit in the future. Using these financial statements, you can plan for the future and lower your risk, as well as attract investors or get approved for financing.

What are Pro Forma Financial Statements?

Pro forma financial statements essentially forecast the future. Standard accounting statements like the balance sheet look at historical financial information, but pro forma documents look forward to help you predict future income through different types of accounting statements. A business' pro forma statement may include projected revenue, estimated expenses, and cash flow for three to five years.

Types of Pro Forma Statements

- Full-year pro forma projection
- Historical with acquisition pro forma projection
- Financing or investment pro forma projection
- Risk analysis pro forma projection

There’s no single pro forma income statement. In fact, there are several pro forma financial statements, and you may want to use more than one to get a full financial picture of your business.

Full-Year Pro Forma Projection

This pro forma projection includes a business’ year-to-date results as well as forecasted income and expenses for the rest of the year to provide a full year view. This pro forma projection is useful to investors and lenders, who want reassurance that your business is slated for profitability.

Historical with Acquisition Pro Forma Projection

If you plan to acquire another business, this is the right pro forma statement for you. It combines your business’ accounting results with that of the business you want to acquire, subtracting acquisition costs and synergies, and therefore shows a rough sketch of how the acquisition will blend into your balance sheet.

Financing or Investment Pro Forma Projection

If you plan to seek funding from investors or take out a business loan, you may be asked for revenue projections. This statement specifically deals with how your company’s results will change if you receive an infusion of capital. You may want to create financial projections for different investment amounts to cover your bases.

Risk Analysis Pro Forma Projection

Whenever making a major financial decision, you need to know best- and worst-case scenarios. That’s where pro forma risk analysis comes in handy. By creating pro forma reports for a variety of scenarios, you can see how a decision will have an impact on your bottom line and make your decisions accordingly.

Three Most Important Pro Forma Financial Statements

In addition to the pro forma financial statements listed above, there are others that you will find useful in your company, even if you're not planning a major change like taking on investments or acquiring another company.

- Pro forma income statements
- Pro forma balance sheets
- Pro forma cash flow statements

Pro Forma Income Statements

Also known as a profit and loss statement, this accounting document shows sales transactions and expenses, as well as cost of goods or services sold and projected net income and profit.

Pro Forma Balance Sheets

The pro forma balance sheet looks at a forecast after a change, like financing or acquisition. It includes assets and liabilities, as well as accounts receivable, cash and cash equivalents, accounts payable, and inventories.

Pro Forma Cash Flow Statements

Another of the pro forma reports you should know about is the cash flow statement. It looks at the likely amount of cash flowing into and out of the business over a future period, based on different scenarios.

Why Create Pro Forma Statements?

So if you're already using GAAP financial statements, why would you go to the trouble of creating pro forma financial information? There are several situations where having a pro forma income statement or other report can come in handy.

Seeking Financing

Whether you're applying for an SBA loan or looking to bring investors on, the individuals you want to work with want reassurance that your business is a good investment. Looking back at historical financial statements is helpful, but if you're planning big changes, the past may not be an accurate portrayal of what the future holds.

Lenders and investors want reasonable assurance that their investment will not only be paid back, but that they will see a positive return on it. Pro forma financial information can help them assess that likelihood.

Planning for the Future

While we can never know what the future holds, we can make some educated forecasts about what it might look like with pro forma income statements. Looking at a few scenarios ranging from worst case to best, you can see what the impact of these changes might be and use this information to guide your decisions.

Anticipating Changes

If you are considering acquiring another company or pivoting the direction your business is headed, you'll want to understand how that will impact your income. Creating a pro forma cash flow statement can help you determine how quickly you will become liquid after this transaction, and you can also determine how many more liabilities it will create.

Financial statements projections

What are **Projected Financial Statements**?
Projected financial statements incorporate current trends and expectations to arrive at a **financial** picture that management believes it can attain as of a future date. At a minimum, **projected financial statements** will show a summary-level **income statement** and **balance sheet**. This information is typically derived from a revenuetrend line, as well as expense percentages that are based on the current proportions of expenses to revenues. A better set of projected financial statements will incorporate the following features:

- A statement of cash flows
- Expense projections that include step costs for major points at which revenues increase or decline
- Consideration of the pace at which the business can reasonably grow, based on its prior history
- Consideration of the corporate bottleneck operation on the ability to grow
- The ability of the business to attract the funding needed in order to accomplish the financial results stated in the plan
    - Projected financial statements take into account past financial trends, market conditions, possible changes and management expectations to arrive at a future financial picture.

    - Accounting alone only looks at past financial data. That is, the expenses you've already incurred and income you've already earned. As well as the assets and liabilities you currently have on the books.

Financial projections are based on compiling the internal and external accounting data you already use in the day-to-day management of your business. By projecting your revenue and expenses, you can get a more accurate view for how successful your business can be. Creating financial projections is not an easy task but is a very important part of developing a sound strategy. The financials tell you what goals to keep and what to cut.

Projections can also be a guide to help your business grow without running out of cash. To generate and support additional revenues, additional cash is always required. Financial projections help you assess what additional assets are needed to support increased revenue and the potential impact on your balance sheet. The projected financial plan indicates how much additional debt or equity you need to remain solvent and healthy.

If your business has been in operation for more than a year, creditors will not only request data on your past performances, referred to as historical data, they will also ask for financial projections. Creditors typically want these types of information for the past and future three to five years. Depending on how long you've been in business, it could be more… or less.

Financial projections should include a forecasting of the income statement, the balance sheet, and the cash flow statement. Projections are made by the month for the first year and then by the year for the next two years.

Developing financial projections for your expanding business can be complicated. To make it less overwhelming, our expert finance team can provide the information on required financial statements every business plan should have.

Financial Projections Accounting Services

All businesses, whether startup or growing, will be required to supply prospective financial data for creditors or investors. CFO Selections' team develops financial projections, determines effective resource allocations and sets clear objectives. Here is a list of important financial statements we include with financial projections:

Historical Financial Data

For Established Business

If you own an established business, we help you to meet creditor requests for historical data related to your company's performance for the last three to five years, depending on the length of time you have been in business.

Typically, the historical financial data to include are your company's income statements, balance sheets, and cash flow statements for each year you have been in business (usually for up to three to five years).

For Startup Business

Many entrepreneurs complain that building accurate revenue and expenses forecasts requires too much time that would be better spent selling rather than planning. Unfortunately, few investors will make a financial commitment if forecasts are unavailable.

We can help you determine your financial requirements for your startup and develop a more efficient planning and cash flow forecasting for budgeting, including operational and staffing plans.

Future Projections

Creditors and investors will also want to see the prospective financial data that reflects expectations of revenue and profit.

What our financial experts can do for you:

- Forecast income statements, balance sheets, cash flow statements and capital expenditure budgets for each year you've been in business.
- For the first year of business, we include monthly or quarterly financial projections. After the first year is recorded, quarterly or yearly projections will suffice for the next four years.
- We ensure your projections match funding requests so there are no inconsistencies. We can help to explain any assumptions that accompany your projections.
- Our expert CFOs will write an analysis of your financial information. This analysis can include ratio and trend analysis along with charts and graphs for a visual overview.

ADVANTAGES AND DISADVANTAGES OF FINANCIAL PROJECTIONS

Financial statements are financial data documents a company publishes on an annual, biannual, quarterly or monthly basis. These documents include the company's net worth based on assets and liabilities, as well as the company's expenses, earnings and operational budget. Financial planners, senior executives and accountants may use financial statements to make decisions regarding future planning, expansions and product launches, but there are disadvantages to using this method.

Advantage: The Ability to Detect Patterns

Financial statements reveal how much a company earns per year in sales. The sales may fluctuate, but financial planners should be able to identify a pattern over years of sales figures. For example, the company may have a pattern of increased sales when a new product is released. The sales may drop after a year or so of being on the market. This is beneficial, as it shows potential and sales patterns so executives know to expect a drop in sales.

Advantage: A Chance to Budget Outline

Another advantage of using financial statements for future planning and decision making is that they show the company's budgets. The budgets reveal how much wiggle room the company has to spend on launching products, developing marketing campaigns or expanding the current office size. Knowing how much money is available for planning and decision making ensures that the company does not spend more than expected.

Disadvantage: Based on Market Patterns

One disadvantage of using financial statements for decision making is that the data and figures are based on the market at that given time. Depending on the market, it may change quickly, so executives should not assume that the numbers from a previous financial statement will remain the same or increase. Just because a company has sold 5 million copies of a product during one year does not guarantee it will sell the same amount or more. It may sell much less if a competitor releases a similar product.

Disadvantage: At-One-Time Analysis

Another disadvantage is that a single financial statement only shows how a company is doing at one single time. The financial statement does not show whether the company is doing better or worse than the year before, for example. If executives decide to use financial statements for making decisions about the future, they should use several financial statements from previous months and years to ensure they get an overall picture of how much the company is doing. The financial statement becomes a continuous analysis, which is more useful than using a single statement.

Cash Flow Projections

What is Cash Flow?

Cash Flow (CF) is the increase or decrease in the amount of money a business, institution, or individual has. In finance, the term is used to describe the amount of cash (currency) that is generated or consumed in a given time period. There are many types of CF, with various important uses for running a business and performing financial analysis. This guide will explore all of them in detail.

Every business, large or small, depends on cash. Dave owns a landscaping business and has a constant need for cash on hand to pay his employees and maintain his equipment. Borrowing money over the long term to meet these needs is unsustainable, so he must have a solid idea of what his cash situation will looks like at various points in the near future if he is to be successful. Let's take a look at how Dave creates and uses cash flow projections in his business.

Definition

A **cash flow projection** shows the expected amounts of money that will come into a business along with what will go out as expenses. This is a different concept than business profit; it is possible for a business to make a profit but still have a cash flow problem. For example, if Dave has his customers pay in advance for one month of lawn care and he has a large tax bill also due that month how is he going to pay his regular expenses and the tax bill? Although he might make enough money next month to make up the difference and still make a profit at the end of the quarter or year, he has immediate obligations that must be paid now.

Types of Cash Flow

There are several types of Cash Flow, so it's important to have a solid understanding of what each of them is. When someone refers to CF, they could mean any of the types listed below, so be sure to clarify which cash flow term is being used.

Types of cash flow include:

1. **Cash from Operating Activities** – Cash that is generated by a company's core business activities – does not include CF from investing. This is found on the company's Statement of Cash Flows (the first section).
2. **Free Cash Flow to Equity (FCFE)** – FCFE represents the cash that's available after reinvestment back into the business (capital expenditures). Read more about FCFE.
3. **Free Cash Flow to the Firm (FCFF)** – This is a measure that assumes a company has no leverage (debt). It is used in financial modeling and valuation. Read more about FCFF.
4. **Net Change in Cash** – The change in the amount of cash flow from one accounting period to the next. This is found at the bottom of the Cash Flow Statement.

Uses of Cash Flow

Cash Flow has many uses in both operating a business and in performing financial analysis. In fact, it's one of the most important metrics in all of finance and accounting.

The most common cash metrics and uses of CF are the following:

- **Net Present Value** – calculating the value of a business by building a DCF Model and calculating the net present value (NPV)
- **Internal Rate of Return** – determining the IRR an investor achieves for making an investment
- **Liquidity** – assessing how well a company can meet its short-term financial obligations
- **Cash Flow Yield** – measuring how much cash a business generates per share, relative to its share price, expressed as a percentage
- **Cash Flow Per Share (CFPS)** – cash from operating activities divided by the number of shares outstanding
- **P/CF Ratio** – the price of a stock divided by the CFPS (see above), sometimes used as an alternative to the Price-Earnings, or P/E, ratio
- **Cash Conversion Ratio** – the amount of time between when a business pays for its inventory (cost of goods sold) and receives payment from its customers is the cash conversion ratio
- **Funding Gap** – a measure of the shortfall a company has to overcome (how much more cash it needs)
- **Dividend Payments** – CF can be used to fund dividend payments to investors
- **Capital Expenditures** – CF can also be used to fund reinvestment and growth in the business

How to Calculate Cash Flow Projection

In order to create your cash flow projection, you want to open and use an Excel spreadsheet. Create 12 columns, representing 12 months. Then, create the following rows:

- Operating cash, beginning: The amount of money you will have at the beginning of each month
- Sources of cash: All the money coming into the business each money i.e. collections, direct sales, loans
- Total Sources of Cash: The sum of operating cash and sources of cash
- Uses of cash: Every expense to the business, including rent, payroll, accounts payable, etc.
- Total Uses of Cash: Add up all the expenses so you can see the total amount leaving each month
- Excess of Cash: This is the difference between the total sources of cash and the total uses of cash. This is the most important number because it lets you know what your cash flow will be for the month, whether it is a positive of negative number.

Advantages of projecting cash flow

Estimating anticipated cash flow projections can help boost your business's success.

Projecting cash flows has many advantages. Some pros of creating a cash flow projection include being able to:

- Predict cash shortages and surpluses
- See and compare business expenses and income for periods
- Estimate effects of business change (e.g., hiring an employee)
- Prove to lenders your ability to repay on time
- Determine if you need to make adjustments (e.g., cutting expenses)

Cash flow projection isn't for every business. Your projected cash flow analysis can be time-consuming and costly if done wrong.

Keep in mind that cash flow predictions will likely never be perfect. However, you can use your projected cash flow as a tool to help manage cash flow.

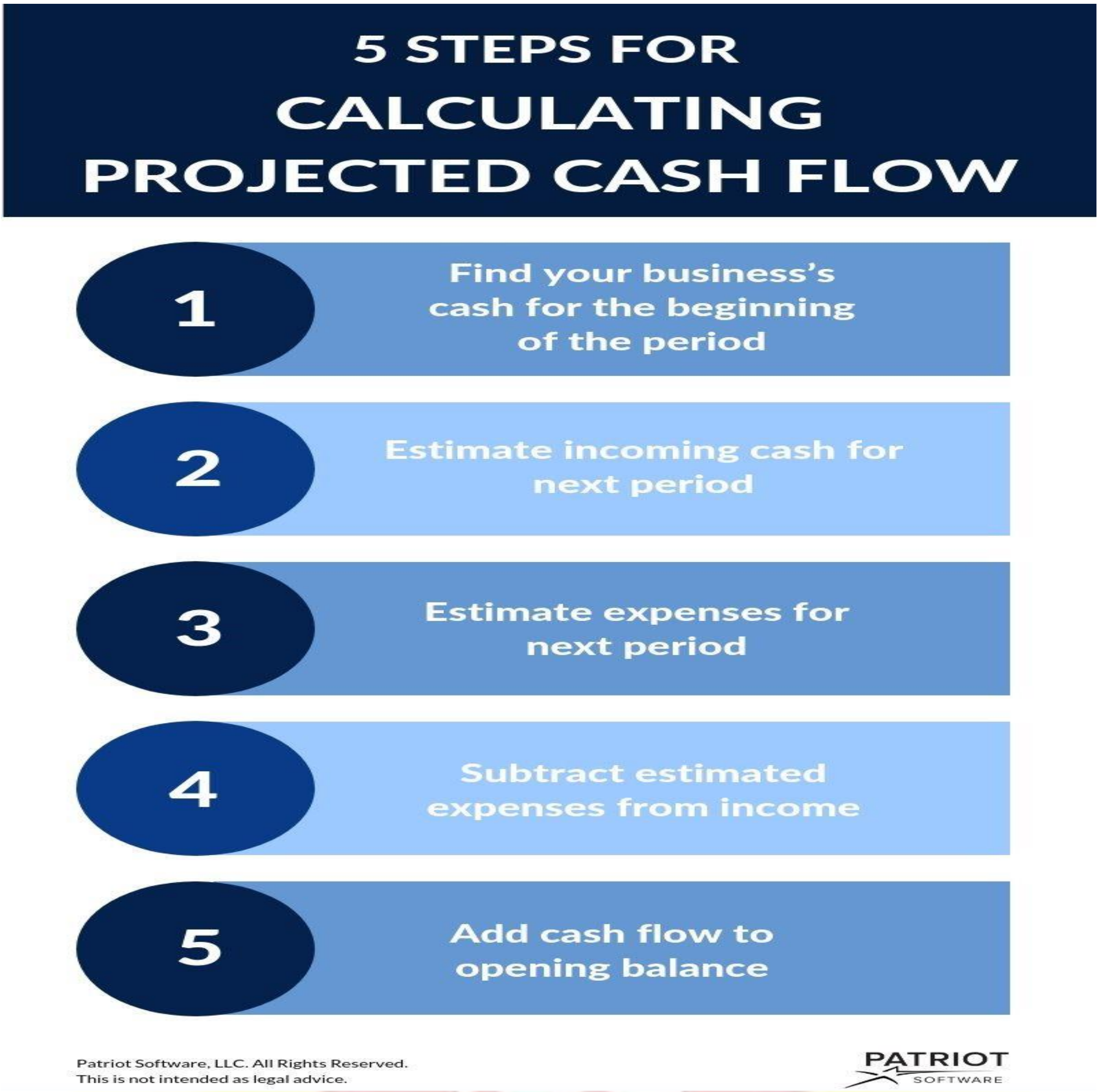
The bottom line is, your cash projections give you a clearer picture of where your business is headed. And, it can show you where you need to make improvements and cut costs.

How to calculate projected cash flow

If you're ready to start calculating projected cash flow for your business, start gathering some historical accounting data.

You need to get reports detailing your business's income and expenses from your accountant, books, or accounting software. Depending on the timeframe you want to predict, you might need to gather additional information.

Want to learn how to calculate cash flow projections? Use the projected cash flows steps below.



1. Find your business's cash for the beginning of the period

To calculate your cash from the beginning of the period, you need to subtract the previous period's expenses from income.

Cash at Beginning of Period = Previous Period's Income – Previous Period's Expenses

2. Estimate incoming cash for next period

Next, you need to predict how much cash will come into your business during the next period.

Incoming cash includes things like revenue, sales made on credit, loans, and more.

You can forecast future cash by looking at trends from previous periods. Be sure to account for any changes or factors that differ from previous periods (e.g., new products).

3. Estimate expenses for next period

Think about all the expenses you will pay next period. Consider things like raw materials, rent, utilities, insurance, and other bills.

4. Subtract estimated expenses from income

To calculate your business's cash flow, subtract your estimated expenses from your estimated income.

Cash Flow = Estimated Income – Estimated Expenses

5. Add cash flow to opening balance

After you calculate cash flow, you need to add it to your opening balance. This will also give you your closing balance. Your closing balance will carry over to act as your starting balance for the next period.

Creating a projection of cash flow

If you want to create your own cash flow projection, start drafting out columns for your future periods. Or, you can take advantage of a spreadsheet to organize your cash flow statement projections.

The following categories should be included in cash flow projection:

- Opening balance
- Cash in (e.g., sales)
- Cash out (e.g., expenses)
- Totals for cash in and cash out
- Uses of cash (e.g., materials)
- Total cash flow for the period
- Closing balance
- Periods (e.g., month of January)

After you lay out the sections on your cash flow projection report, plug in your projected cash flow calculations.

Unit III:

Cost and Variance Measures Comparison of actual to planned result

ManagementbyException

Meaning:

It is a system of identification and communication that signals themanager as to when and where his attention is needed. The mainobject of this system is to enable the manager to identify and isolatetheproblemsthatcallfordecisionandaction,andavoidorignoreorpaylessattentiontol esscriticalproblemswhichbetterbehandledbyhissubordinates.

Underthissystemthemanagershouldreceiveonlycondensed,summarisedandinvariableco mparativereportscoveringalltheelements, and he should have all the exceptions to the past averagesor standards pointed out, both the specially good and the speciallybadexceptions.

This gives him a full view of the progress in a few minutes of time.Thus by using the experience in a systematic way (i.e., having theknowledgeofpastattainments),acarefulanalysisismadewithreferencetoexistingrecords andstandardsofperformances.

AdvantagesofManagementbyException:

1. Itsavestime.Managerattendstorealproblemsataparticularpointoftime.
2. Concentrated efforts are possible, as this system enables themanager to decide when and where he should pay his attention. Itidentifiescrisisandcriticalproblems.
3. Lessernumberof decisionsisrequiredtobetaken,whichenablesthemanagerto gointo detail.
4. This enables to increase span of control and increase the activitiesforamanager.
5. Useofpasttrends,history andavailabledatacanbemadefully.
6. Italarmsthemanagementaboutthegoodopportunitiesaswellasdifficulties.
7. Qualitative and quantitative yardsticks are provided for judgingthecurrentposition.
8. Itpreventsmanagementfromovermanaging.

LimitationsofManagementbyException:

Managementbyexceptionisnot asolutiontoallmanagementproblems;ithasitslimitationsaswell.

Someofthemare:

1. Itrequiresacomprehensiveobservingandreportingsystem.
2. Itincreasespaper work.
3. Thesystemissilenttilltheproblembecomescritical.
4. Some important factors, like human behaviour, are difficult tomeasure.

SystemofManagement byException:

The system of Management by Exception can be evolved infollowingphases:

IPhase:MeasurementPhase:

In this phase, facts of **operational situation** are collected andassessed, i.e., use of performance of its whole range inputs such asefforts contributing to the goals of the organisation; its productivity,moneyflow,effectivenessoffinancialresourcesbeingusedtoproducegoods,servicesa ndprofits;availabilityandwastageofmaterial and its economy from its purchase through processing andstoring to delivery for finished products utilisation, capability andproductivityofthemachines.

Theinformationaboutallthesefactorsareutilisedbywayofquantitative measurements like using time standards, balance sheetdata,inventorydata,inspectionresultsoffinishedproducts,inventoryaccumulationforsales,cur rentassets,equipmentutilisationdata.

II Phase:ProjectionPhase:

In this phase, analysis of those measurements which are meaningfultotheobjectivesoftheorganisationforfutureoutlookorexpectations is carried out. Past and present data are projected byusingthestatisticalconceptlikeprobability,standarddeviation,confidence, correlation, sample size,significanceetc.

Examine the potential effect of changes expected as per forecast.Then the projections are modified by the forecasts to decide the‘goals’. At this stage complete planning is thoroughly looked at fromtheangleofexistingpoliciesandprocedures,organisationstructure, adequacy and capability of the existing staff and equip-ment. Ifneedarisesnecessarychangesaremade.

III Phase:SelectionPhase:

In this phase, those vital and economical available measures areselected, which will best indicate the progress towards its objectives.Thus the criteria are selected, which the management would like tousetofollowtheprogressorperformancetowardspredictedobjectives.

IV Phase:ObservationPhase:

In this phase, current status of performance is periodically observedandmeasured.Thesystemshouldbereliable,automaticandadequate. Adequatemeansofobservationsshould neitherbe toolessnortoomore,andonlynecessaryinformationatdesiredfrequencyisobtained.

V Phase:ComparisonPhase:

In this phase, comparison is made between the actual and expectedperformanceandprogressinordertoidentifytheexception,analyse causes and report the need for action to the appropriateauthority abouttheexceptionsthat requiredpriorityofattention.

VI Phase:ActionPhase:

Thisisthephase,wheredecisionsaretakenandimplementedwitha view to bring the performance to the desired level or adjust inanticipations to reflect changing conditions or take full advantage ofbetterperformanceoropportunity.

Thus the Management by Exception compromise as systematicapproach of handling the management problems and free themanager from the demands of routine work, which enables him todevote more time for creative efforts directed towards “improvingthe overall efficiency of the organisation”. This also providesnecessary information readily available, for taking timely andqualitativedecisions, whichwouldrequirelotoftime.

Use of standardcostsystems

Standard cost systems make use of standard costs, which are the budgeted or estimated costs deemed to be necessary to manufacture a single unit of product or perform a single service. Standards are traditionally established for each component (material, labor, and overhead) of product cost. Actual costs are compared to standard costs to determine variances (the difference between the actual cost and the cost that was expected to be incurred). In a standard cost system, both standard costs and actual costs are recorded in accounting records. This dual record keeping affords an element of cost control by providing norms against which actual costs operations can be compared

Advantages and Disadvantages of Standard Costing

Five of the benefits that result from a business using a standard cost system are:

- Improved cost control.
- More useful information for managerial planning and decision making.
- More reasonable and easier inventory measurements.
- Cost savings in record-keeping.
- Possible reductions in production costs.

Improved cost control Companies can gain greater cost control by setting standards for each type of cost incurred and then highlighting exceptions or variances—instances where things did not go as planned. Variances provide a starting point for judging the effectiveness of managers in controlling the costs for which they are held responsible.

Assume, for example, that in a production center, actual direct materials costs of $ 52,015 exceeded standard costs by $ 6,015. Knowing that actual direct materials costs exceeded standard costs by $ 6,015 is more useful than merely knowing the actual direct materials costs amounted to $ 52,015. Now the firm can investigate the cause of the excess of actual costs over standard costs and take action.

Further investigation should reveal whether the exception or variance was caused by the inefficient use of materials or resulted from higher prices due to inflation or inefficient purchasing. In either case, the standard cost system acts as an early warning system by highlighting a potential hazard for management.

More useful information for managerial planning and decision making When management develops appropriate cost standards and succeeds in controlling production costs, future actual costs should be close to the standard. As a result, management can use standard costs in preparing more accurate budgets and in estimating costs for bidding on jobs. A standard cost system can be valuable for top management in planning and decision making.

More reasonable and easier inventory measurements A standard cost system provides easier inventory valuation than an actual cost system. Under an actual cost system, unit costs for batches of identical products may differ widely. For example, this variation can occur because of a machine malfunction during the production of a given batch that increases the labor and overhead charged to that batch. Under a standard cost system, the company would not include such unusual costs in inventory. Rather, it would charge these excess costs to variance accounts after comparing actual costs to standard costs.

Thus, in a standard cost system, a company assumes that all units of a given product produced during a particular time period have the same unit cost. Logically, identical physical units produced in a given time period should be recorded at the same cost.

Cost savings in record-keeping Although a standard cost system may seem to require more detailed record-keeping during the accounting period than an actual cost system, the reverse is true. For example, a system that accumulates only actual costs shows cost flows between inventory accounts and eventually into cost of goods sold. It records these varying amounts of actual unit costs that must be calculated during the period. In a standard cost system, a company shows the cost flows between inventory accounts and into cost of goods sold at consistent standard amounts during the period. It needs no special calculations to determine actual unit costs during the period. Instead, companies may print standard cost sheets in advance showing standard quantities and standard unit costs for the materials, labor, and overhead needed to produce a certain product.

Possible reductions in production costs A standard cost system may lead to cost savings. The use of standard costs may cause employees to become more cost conscious and to seek improved methods of completing their tasks. Only when employees become active in reducing costs can companies really become successful in cost control.

Three of the disadvantages that result from a business using standard costs are:

- Controversial materiality limits for variances.
- Nonreporting of certain variances.
- Low morale for some workers.

Controversial materiality limits for variances Determining the materiality limits of the variances

may be controversial. The management of each business has the responsibility for determining what constitutes a material or unusual variance. Because materiality involves individual judgment, many problems or conflicts may arise in setting materiality limits.

Nonreporting of certain variances Workers do not always report all exceptions or variances. If management only investigates unusual variances, workers may not report negative exceptions to the budget or may try to minimize these exceptions to conceal inefficiency. Workers who succeed in hiding variances diminish the effectiveness of budgeting.

Low morale for some workers: The management by exception approach focuses on the unusual variances. Management often focuses on unfavourable variances while ignoring favourable variances. Workers might believe that poor performance gets attention while good performance is ignored. As a result, the morale of these workers may suffer.

Analysisof variation from standardcost expectations.

Standard costing is the establishment of cost standards for activities and their periodic analysis to determine the reasons for any variances. Standard costing is a tool that helps management account in controlling costs.

For example, at the beginning of a year a company estimates that labor costs should be $2 per unit. Such standards are established either by historical trend analysis of the cost or by an estimation by any engineer or management scientist. After a period, say one month, the company compares the actual cost incurred per unit, say $2.05 to the standard cost and determines whether it has succeeded in controlling cost or not.

This comparison of actual costs with standard costs is called variance analysis and it is vital for controlling costs and identifying ways for improving efficiency and profitability. If actual cost exceeds the standard costs, it is an unfavorable variance. On the other hand, if actual cost is less than the standard cost, it is a favorable variance.

Variance analysis is usually conducted for

- Direct material costs (price and quantity variances);
- Direct labor costs (wage rate and efficiency variances); and
- Overhead costs.

Analysis of variance in planned and actual sales and sales margin is also vital to ensure profitability.

StandardCostingandVarianceAnalysis

Infast growingbusinessworld,majorgoaloforganizationsistoreducethecost ofproductionandcontrol the cost as there are limited resources in business and manufacturing concern. Costaccountinghasnumeroussignificanttoolsinordertoattainthesegoalssuchasstandardcosting.

StandardCosting

Standard costs are extensively recognized in all countries of world. It is aneffectual procedure to control cost and assist to accomplish organizationalgoal.Standardcostsarerealisticestimatesofcostbasedonanalysesofboth past and projected operating costs and conditions. In this procedure, standardcost of the product and services is **determined in advance** and comparing itwith actual cost variance to ascertain and analyse. Huge accounting literaturehas stated that standard costing is the preparation and use of standard costs,their comparison with actual cost and the analysis of variance to their causesandpointsofincidence(ICMA,London).***AccordingWheldon,standardcostingisthemethod ofascertainingthecostswherebystatisticsare preparedtoshowstandardcost,actualcost,andthedifferencebetweenthesecostswhichistermedas variance.***

OthertheoristslikeBrownandHowarddescribedthatstandardcostingisatechniqueofaccounting whichcomparesthestandardcostofproductand serviceswithactualcosttodeterminetheefficiencyofoperationssothatremedialactionscanbetakeni mmediately.

Thethreecomponents ofstandardcosting:

1. Standardcosts,whichprovideastandard,or**predeterminedperformance**level.
2. Ameasureof**actualperformance**.
3. Ameasureofthe**variancebetween** standardandactualperformance.

Standardcostingusesestimatedcostscompletelytocalculateallthreeelementsofproductcosts:**d irectmaterials,directlabour,andoverhead**.
Managers use standard costs for planning and control in the managementprocess such as planning for budget development; product costing, pricing,anddistribution.

The main difference between standard costing in a **service organization** andstandard**costinginamanufacturingorganizationisthataserviceorganizationhasnodirect materialscosts.**

In a standard costing system, costs are entered into the Materials, Work inProcess, and Finished Goods Inventory accounts and the Cost of Goods Soldaccountatstandardcost;actualcostsarerecordedseparately.

Thefollowingelementsareusedtoverifyastandardcostperunit:

1. Directmaterialspricestandard
2. Directmaterialsquantitystandard
3. Directlabourratestandard
4. Directlabourtimestandard
5. Standardvariableoverheadrate
6. Standardfixedoverheadrate

DeterminationofStandardCosts

Thefollowinginitialstepsmustbetakenbeforedeterminationofstandardcost:

1. EstablishmentofCostCentres:ItistheprimarysteprequiredbeforesettingofStandards.

2. ClassificationandCodificationofAccounts:CategorizationofAccountsandCodificationofdifferentitemsofexpensesandincomesassistquickascertainmentandanalysisofcostinformation.
3. TypesofStandardstobeapplied:Determinationofthetypeofstandardtobeusedisvitalstepsbeforeestablishingofstandardcost.There are numerousstandards:
   I. IdealStandard
   II. BasicStandard
   III. CurrentStandard
   IV. ExpectedStandard
   V. NormalStandard
4. OrganizationforStandardCosting:Theachievementofthestandardcosting system depends upon the consistency of standards, therefore theresponsibility for setting standard is vested with the Standard Committee. Itconsistsof followingteam:
   I. PurchaseManager
   II. ProductionManager
   III. PersonnelManager
   IV. TimeandMotionStudyEngineers
   V. MarketingManagerandCostAccountant

5. Setting of Standards: The Standard Committee is responsible

forDevelopingstandardsforeachcomponentofcostssuchasDirectMaterial,DirectLabour,Overheads(FixedoverheadsandVariableOverheads).

FeaturesofStandardCosting

- Standardcostingisa **techniqueof costaccounting.**
- Thecostorserviceorproductis**predetermined**.
- Thepredeterminedcost isknownasstandard**cost.**
- **Actualcostofproduct**andserviceisascertained.
- Thecomparisonismadebetween**standardcostandactualcostandvariancesarenoted.**
- Variancesareanalysedto**findout thereason**.
- Variancesarereportedto**managementinordertotakecorrectiveaction.**

WaysofDevelopingStandards

Thedirect materialspricestandardisbasedonavigilant estimateofallpossible price increases, changes in available quantities, and new sources ofsupplyinthenextaccountingperiod.

Thedirectmaterialsquantitystandardisbasedon**productengineering**specifications, the **quality of direct materials**, the **age and productivity ofmachines,andthequalityandexperienceoftheworkforce.**

The direct labour rate standard is defined by **labour union contracts andcompanypersonnelpolicies.**

Thedirectlabourtimestandardisbasedon**currenttimeandmotionstudiesofworkersandmachinesandrecordsoftheir pastperformance.**

The standard variable overhead rate and standard fixed overhead rate arefound **by dividing total budgeted variable and fixed overhead costs by anappropriateapplicationbase.**

Meritsofstandardcosting:

- Itisaveryusefultoolto controlthecost.
- Itistheanalysisofvarianceswhichreducesthecostandincreaseprofitability. tisalsobeneficialformanagementbecauseitassistsinfixationofsellingprice,ascertainingthe valueofclosingstocksofworkinprogress, determining idle capacity, and performs various managementfunctions.
- The standards provide incentives and motivation to work and help inincreasingefficiencyandproductivity.
- This technique is helpful in optimal use of resources. Standard costinghelps in budgetary control and in decision making. This technique iseconomical forusers(Gupta,et,al.,2006).

ItcanbeestablishedthatStandardCostingisanotionofaccountingtodetermineofstandardforeachconstituent ofcosts.

- These fixed costs are compared with actual costs to realize the deviationsknown as "Variances". Recognition and analysis of causes for such variancesand corrective measures should be taken in order to beat the reasons forVariances

VarianceAnalysis

Varianceanalysisistheprocedureofcomputingthedifferencesbetween standard costs and

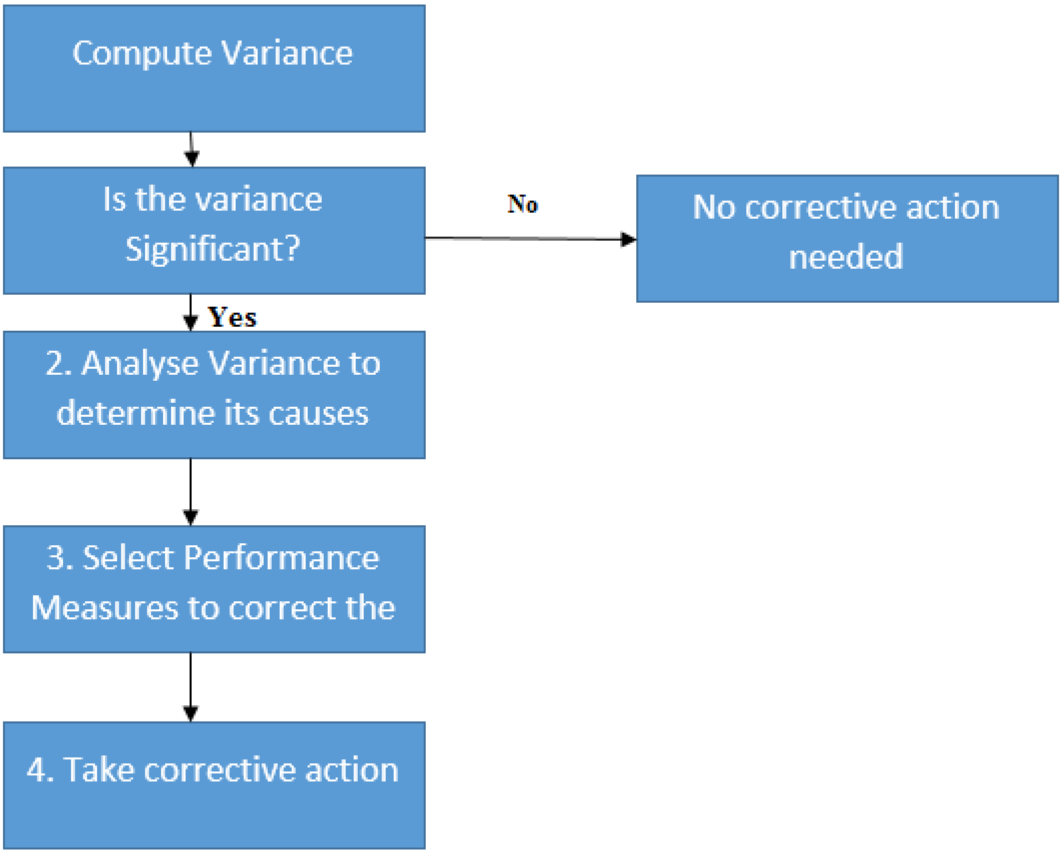
actual costs and recognizing the causes ofthosedifferences.

Studiesindicatedthatvarianceisthedifferencebetweenstandardperformanceandactualperformance.It is the process of scrutinizing variance by subdividing the total variance insuchawaythatmanagementcanassignresponsibilityforoff-StandardPerformance.

Varianceanalysishasfoursteps:

1. Computetheamountofthevariance.
2. Determinethecauseofanysignificantvariance.
3. Identify performance measures that will track those activities, analyse theresultsofthetracking,anddeterminewhatisneededtocorrecttheproblem.
4. Takecorrectiveaction.

Varianceanalysis:AFour-StepApproachtoControllingCosts



The variance can be favourable variance or unfavourable variance. When theactualperformanceissuperiortotheStandard,itresents"FavourableVariance." Likewise, where actual performance is under the standard it iscalledas"UnfavourableVariance."

Variance analysis assists to fix the responsibility so that management candetermine-

a. Theamountof thevariance
b. Thereasonsforthedifferencebetweentheactualperformanceandbudgetedperformance.
c. Thepersonresponsibleforpoor performance
d. Correctiveactionstobetaken.

Types of Variances:

Variances is categorized into two categories that includeCostVarianceandSalesVariance.
Cost Variance: Total Cost Variance is the difference between Standards Costfor the Actual Output and the Actual Total Cost sustained for manufacturingactualoutput. TheTotal CostVarianceconsistsof:

I. DirectMaterial CostVariance
II. DirectLabourCostVariance
III. OverheadCostVariance

DirectMaterialVariances: DirectMaterialVariancesarealsoknownasMaterial Cost Variances. The Material Cost Variance is the difference betweenthe Standard cost of materials for the Actual Output and the Actual Cost ofmaterialsusedforproducingactualoutput.

TheMaterial CostVarianceiscomputedas:

$$\text{Material Cost Variance} = \text{Standard Cost} - \text{Actual Cost}$$

$$\text{MCV} = \text{SC} - \text{AC}$$

(or)

$$\text{MCV} = \left\{\text{Standard Quantity} \times \text{Standard Price}\right\} - \left\{\text{Actual Quantity} \times \text{Actual Price}\right\}$$

$$= (\text{SQ} \times \text{SP}) - (\text{AQ} \times \text{AP})$$

Labour Cost Variance: Labour Cost Variance is the difference between theStandard Cost of labour allowed for the actual output achieved and the actualwages paid. It is also termed as Direct Wage Variance or Wage Variance.LabourCostVarianceiscalculatedasfollow:

$$\text{Labour Cost Variance} = \text{Standard Cost of Labour} - \text{Actual Cost of Labour}$$

(or)

$$\text{Labour Cost Variance} = \left\{\text{Standard Rate} \times \text{Standard Time for Actual Output}\right\} - \left\{\text{Actual Rate} \times \text{Actual Time}\right\}$$

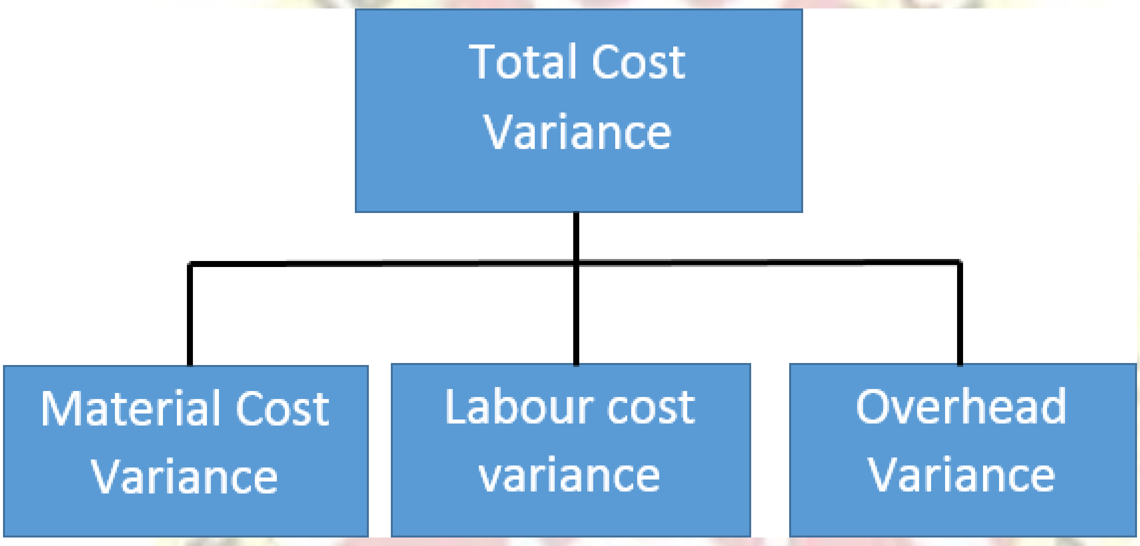
Overheadvariance: Overheadisexplainedasthecumulativeofindirectmaterial cost, indirect labour cost and indirect expenses. Overhead Variancesmayoccurduetothedifferencebetweenstandardcostofoverheadforactualproductionandtheactualoverheadcostincurred.TheOverheadCostVariancemaybecomputedasfollows:

$$\text{Overhead Cost Variance} = \left\{\begin{matrix}\text{Standard Overhead} \\ \text{Rate Per Unit}\end{matrix} - \begin{matrix}\text{Actual Overhead} \\ \text{Cost}\end{matrix}\right\} \times \text{Actual Output}$$

(or)

$$\left\{\begin{matrix}\text{Standard Hours for} \\ \text{Actual Output}\end{matrix} \times \begin{matrix}\text{Standard Overhead} \\ \text{Rate Per Hour}\end{matrix}\right\} - \text{Actual Overhead Cost}$$

Component of Varianceanalysis.



Sales variance: The Variances so far analysis is linked to the cost of goodssold. Quantum of profit is derived from the difference between the cost andsalesrevenue.CostVariancesaffecttheamountofprofitpositivelyorunfavourably depending upon the cost from materials, labour and overheads.Additionally, it is important to analyse the difference between actual sales andthetargetedsalesbecausethisdifferencewillhaveadirectimpactontheprofit and sales. Therefore the analysis of sales variances is importanttostudyprofit variances.

SalesVariancescanbecalculatedbytwomethods:

I. SalesValueMethod.

II. SalesMarginorProfitMethod.

BasisofCalculation:Varianceanalysisemphasizesthecausesofthevariation in income and expenses during a period compared to the financialplan. In order to make variances significant, the idea of 'flexed budget' is usedwhen calculating variances. Flexed budget acts as a link between the originalbudget (fixed budget) and the actual results. Flexed budget is prepared inretrospect based on the actual output. Sales volume variance accounts for thedifference between budgeted profit and the profit under a flexed budget. Allremaining variances are calculated as the difference between actual resultsandtheflexedbudget.

To summarize, Variance Analysis, is administrative accounting which denotestotheanalysisofdeviationsinfinancialperformancefromthestandardsdefiniteinorganizationalbudgets.InVarianceAnalysis,thedifferencebetween actual cost anditsbudgeted or standard cost segregatedintopriceor quality component. It has beenshown that favourable varianceoccurswhenoutputexceedsinputorwhenthepricepaidforthegoodsandservicesis less than anticipated. An unfavourable variance occurs when output is lessthaninputorwhenthepriceforgoodsandservicesisgreaterthanexpected.

UNIT IV
Responsibility centers and reporting segments

ConceptofResponsibilityCenters:

Definition**: Responsibility Centrerefersto an operating segment withinthefirm,leadbythemanagerwhoisaccountableforitsactivities,performance and results, in terms of expenditure, profit, and return oninvestment.**

Aresponsibilitycentrehasits**owngoalandobjectives,plansandstrategies, policies andprocedures.**Further, ithas a dedicated team orstaffwhoworksfortheachievementof itsgoalsandperformancetargets.

Asthefirm growsandexpands, itssize,functions,activitiesandoverallstructure alsochangeandso,for bettermanagementandcontrolover the organization, it is split into various centres and the management assignsthe responsibility to the supervisor or manager These centres are termed asresponsibilitycentres.
Any organizational or functional unit headed by a manager who isresponsible for the activities of that unit is called a responsiblecenter. The manager is responsible or accountable for theaccomplishmentsofthetaskssetinhisunit.
The total organizational task is divided into sub-tasks, which areperformedbydifferentdepartments.Inthissense,alldepartmentsinanorganization areresponsibilitycenters.
All responsibility centers use resources [inputs or costs] to producesomething [output or revenues]. Typically responsibility is assignedtoa revenue,expense, profitand/orinvestmentcenter. The decision usually will depend on the activity performed by theorganizational unit and on the manner in which inputs and outputsaremeasuredbyorganizationalcontrol system.

The organizational chart shows the sub-tasks being performed bydifferent departments and also the tasks to be performed by eachresponsibility center. The size of the responsibility center will,however,isdeterminedbythenatureof thetask,technology,peopleandthelevelintheorganizationhierarchy.

From the top management point of view, a division is aresponsibility center, from the divisional management’s point ofview; the market department of that division is a responsibilitycenter. And from the marketing manager’s point of view, the sales,distribution,andadvertisingdepartmentsareresponsibilitycenters.

TypesofResponsibilityCenters:

Thefollowing arethetypesofresponsibility centers:

[a] RevenueCenter,

[b] Expensecenter,
[c] Profitcenter,and
[d] InvestmentCenter.

Theyaredescribedbelow:

(a) *RevenueCenters:*

Revenue centers are those organizational units or segments inwhichoutputsaremeasuredinmonetary termsbutarenotdirectly compared to input costs. The main focus of management's effortswillbeonrevenuegeneratedbyit.Asalesdepartmentisanexampleforarevenuecenter.

The effectiveness of the center is not judged by how much salesrevenue exceeds the cost of the center. Rather budgets [in the formof sales quotas] are prepared for the revenue center and thebudgetedfiguresarecomparedwiththeactual sales.

Generallythecostsarenot relatedtooutput.However,thisdoesnotmeanthat effortsarenot takentocontrolcostsinrevenue centers.
Though the management'smainfocusismoreonrevenues, necessary attemptsaremadetocontrolcosts.

(b) *ExpenseCenters:*

In expense centers, inputs [cost and expenses] are measured inmonetary terms but outputs are not. The main focus of themanagement will be on the control of the expenses or costs incurredbytheresponsibilitycenter.

So budgets will be devised only for the input portion of thesecenters'operations.Organizationalunitscommonlyconsideredexpense centers include administration service, and researchdepartments.

There are two types of expense centers namely engineeredexpense/costs center and discretionary expenses/costs center.Engineered costs are those for which costs can be estimated withhigh reliability based on the engineering or technical relationshipthat exists between costs and output; for example the cost of directmaterials ordirectlabour.
Discretionary costs are those for which costs cannot be reliablyestimatedbeforehandandmust dependtoalarge extentonthe manager's discretion. In other words, it is not possible to determinethe optimum relationship between costs and outputs and the choiceof relationship is quite often highly subjective and is left to thediscretionofthemanager.

For example, the amount spent on advertising, welfare schemes,management training, etc., cannot be determined objectively. Themanagement has to make a judgment as to the right amount of suchcostsinagivensituationsubjectively.Thediscretionarycostscanbevariedatthediscretionofthe manageroftheresponsibilitycenter.

There is no scientific way of determining the right amount. Otherexamples of discretionary costs centers are the accountingdepartment, personnel department, research and productdevelopment, and soon.

In the case of engineering costs center the objective is to reducecosts as far as possible consistent with quality and safety standards.The budgeted costs are calculated using the technical relationshipfor the actual level of output. Hence, the performance can beevaluated by comprising the actual costs incurred with the budgetedcosts.

The manager in charge of the center is responsible for both levels ofbudgetedoutputas wellas costefficiency.The costsshouldbe reducedwithoutsacrificingthequality.Traditionally,thefocusofcost accounting has been on developing suitable systems formeasurement ofperformance ofengineeredcostcenters.

The performance of a discretionary cost center is also evaluated bycomparing the actual expenses with budgeted expenses. However,the performance evaluation is on the basis of the manager's abilityto spend on the amount agreed upon. The actual should not exceedbudget commitment without the knowledge of the manager. Thissystem motivates managers to keep expenses within the budgetedlevel.

However, difficulties may arise in the measurement of efficiency oreffectiveness since the output cannot be measured in monetaryterms. Further it is difficult to set cost standards and measurefinancial performance against these standards. In an attempt toreduce costs, the divisional manager may cut costs by ignoringmaintenance or avoiding training. But it may not be good for thecompany.

Similarly, the marketing manager may cut costs by reducing salespromotionalandadvertisingexpenses.Butthismayaffect thesalesand profitability of the concern in the long run. Thus, the conflictbetween short-run goal [cutting costs] and long-run goal[improving profitability] assumes particular importance in theevaluationofthe performanceofdiscretionarycostcenters.

(c) *ProfitCenter:*

A profit center generally refers to a segment of an organization thatgenerates revenue. It is a responsibility center, the manager ofwhich is responsible for the amount of profits earned. In a profitcenter, performance is measured by the numerical differencebetweenrevenues[outputs]andexpenditures[inputs].

Themanagersintheprofitcenteraretherefore,responsibleforbothrevenues and costs. Such a measure is useful to determine theeconomic efficiency of the center and individual efficiency of themanagerin chargeofthecenter.

A profit center is created whenever an organizational segment[division/department] is given responsibility for earning a profit. Indepartmentalized organization in which each of the number ofsegments is completely responsible for its own product line, theseparatedivisionsareconsideredprofitcenters.

Each division's performance can be evaluated in terms of profits.Since divisional managers take all decisions relating to technology,product mixes strategies, and personnel, they may influence bothrevenues and expenses. The expenditure of a department's sub-units are added and then deducted from the revenues derived fromthatdivision'sall productsand services.

The net result is the measure of that division's profitability. In non-divisionalized organizations, or within a division, individualdepartments may also be made into profit centers by crediting themfor revenue and charging them for expenses. A manufacturingdepartment, for example, would normally be considered as a costcenter.

Allowing the manufacturing department to 'sell' its products at anagreed rate [called transfer price] to the sale department would be amethod of making it a profit center. The difference between thetransfer price and the manufacturing costs per unit would representthemanufacturingdepartment'sprofits.

(d) InvestmentCenter:

An investment center is a responsibility center whose manager isresponsible for earning a rate of return on the assets used in hisresponsibility center. In an investment center, the control systemagain measures the monetary value of inputs and outputs, but italso assesses how those outputs compare with the assets employedinproducingthem.

For example, divisions in an automobile manufacturing company,individual departments in a departmental store and individualbranchesofamultiple shop areinvestmentcenters.

It is important to realize that any profit center can also beconsidered an investment center, because its activities require someform of capital investment. In other words, an investment centercan be considered as a special type of profit center, in which focus isalsoon assetsemployed.

However, a center's capital investment insignificant [as aconsultancy firm] or its managers have no control over capitalinvestment; it may be more appropriately treated as a profit center.The distinguishing feature of an investment center that it isevaluatedonthebasis oftherateofreturnearnedontheassetsinvested in that center, while a profit center is evaluated on thebasis ofexcessrevenueoverexpensesfortheperiod.

Hence, it is better to designate a segment as an investment centerrather than a profit center in order to enhance the utility ofresponsibility accounting. A segment may earn greater profits thanothers not because of better performance but by using more assetstoearn suchprofits.

(e) ContributionCenter:

It is centre whose performance is mainly measured by thecontribution it earns. Contribution is the difference between salesandvariablecosts.Itisacentredevotedtoincreasing contribution.The main responsibility of the manager of such a responsibilitycenter is to increase contribution. Higher the contribution betterwillbetheperformanceofthemanagerofacontributioncenter.

- **Cost Centre**: The smallest segment of an organization for which a specificaccumulation of cost is attempted, is called cost centre. It is that unit of thefirm into which the entire factory is divided appropriately. It can be adepartment or a team, which represent one job, activity, process ormachine, whose costs are allocated equitably and practically to cost unit,for thepurposeofcosting.

  The performance of the cost centre can be measured against set standardsandbudgets.Costcentresarecreatedafter determiningarational basis,fortracing and attributing the cost of production and a person is authorized tocontrol the centre and is accountable for its performance and cost chargedtothecentre.

- **ProfitCentre**:Atypeofresponsibilitycentre,whichisheldaccountableforall the production-related activities and the sale of products, and provisionof services. Meaning that the managers of the profit centres are not onlyresponsiblefortheincurrenceofexpenditure,but alsoforthegenerationofrevenue. Hence, both inputs and outputs are measured, so as to identifythefirm'sprofitability.

  The profit centres aim at adopting new ways and implementing suchstrategies which help in earning more profits on a product, service oractivity.Strategicbusinessunitsareoneof theexamplesofprofitcentres.

- **RevenueCentre**:RevenueCentreisauniquelyidentifiablesubunitoftheorganizationwhichisheldaccountableforgeneratingrevenueforthe organizationfromsellingproductsandrenderingservices.Theefficiencyofthe revenue centre is evaluated on the basis of its ability to generate salesand not on the costs incurred. The manager of the revenue centre is heldresponsibleforachievingsalestargets.

  Acompany'ssalesdepartmentisanexampleofarevenuecentre,whichisresponsibleforattainingthesalestargets.

- **Investment Centre**: Responsibility Centres which are not just accountablefor theprofitabilityoftheunitbutareauthorizedtotakeimportantdecisionsconcerning the capital investments, such as company's credit policy,monetarypolicy,inventorypolicy,etc.

  Theheadoftheinvestmentcentreisheldaccountableformakingdecisionsregarding investment in the production, advertising and assets. Return onInvestment acts as the basis for measuring the performance of theinvestmentcentres.

One can gauge the performance of the responsibility centre against a pre-defined standard. Thereafter, the actual results are compared with thestandardonesandareevaluatedagainsttheobjectivesofthefirm

Transfer Pricing:

What Is Transfer Price?

Transfer price, also known as transfer cost, is the price at which related parties transact with each other, such as during the trade of supplies or labor between departments

- Transfer prices that differ from market value will be advantageous for one entity, while lowering the profits of the other entity.

- Multinational companies can manipulate transfer prices in order to shift profits to low tax regions.
- To remedy this, regulations enforce an arm's length transaction rule that requires pricing to be based on similar transactions done between unrelated parties.

Transfer prices are used when individual entities of a larger multi-entity firm are treated and measured as separately run entities. It is common for multi-entity corporations to be consolidated on a financial reporting basis; however, they may report each entity separately for tax purposes.

A transfer price arises for accounting purposes when related parties, such as divisions within a company or a company and its subsidiary, report their own profits. When these related parties are required to transact with each other, a transfer price is used to determine costs. Transfer prices generally do not differ much from the market price. If the price does differ, then one of the entities is at a disadvantage and would ultimately start buying from the market to get a better price.

Regulations on transfer pricing ensure the fairness and accuracy of transfer pricing among related entities. Regulations enforce an arm’s length transaction rule that states that companies must establish pricing based on similar transactions done between unrelated parties. It is closely monitored within a company’s financial reporting.

Transfer pricing requires strict documentation that is included in the footnotes to the financial statements for review by auditors, regulators, and investors. This documentation is closely scrutinized. If inappropriately documented, it can burden the company with added taxation or restatement fees. These prices are closely checked for accuracy to ensure that profits are booked appropriately within arm's length pricing methods and associated taxes are paid accordingly.

Transfer prices are used when divisions sell goods in intracompany transactions to divisions in other international jurisdictions. A large part of international commerce is actually done within companies as opposed to between unrelated companies. Intercompany transfers done internationally have tax advantages, which has led regulatory authorities to frown upon using transfer pricing for tax avoidance.

When transfer pricing occurs, companies can manipulate profits of goods and services, in order to book higher profits in another country that may have a lower tax rate. In some cases, the transfer of goods and services from one country to another within an intracompany transaction can also allow a company to avoid tariffs on goods and services exchanged internationally. The international tax laws are regulated by the Organisation for Economic Cooperation and Development (OECD), and auditing firms within each international location audit the financial statements accordingly.

Transactions Subject to Transfer Pricing:

The following are some of the typical international transactions which are governed by the transfer pricing rules:

- Sale of finished goods
- Purchase of raw material
- Purchase of fixed assets
- Sale or purchase of machinery etc.
- Sale or purchase of intangibles
- Reimbursement of expenses paid/received
- IT enabled services
- Support services
- Software development service

- Technical Service fees
- Management fees
- Royalty fees
- Corporate Guarantee fees
- Loan received or paid

Purposes of Transfer Pricing

The key objectives behind having transfer pricing are:

- Generating separate profit for each of the divisions and enabling performance evaluation of each division separately.
- Transfer prices would affect not just the reported profits of every centre, but would also affect the allocation of a company’s resources (Cost incurred by one centre will be considered as the resources utilized by them)

Importance of Transfer Pricing

For the purpose of management accounting and reporting, multinational companies (MNCs) have some amount of discretion while defining how to distribute the profits and expenses to the subsidiaries located in various countries.

Sometimes a subsidiary of a company might be divided into segments or might be accounted for as a standalone business. In these cases, transfer pricing helps in allocating revenue and expenses to such subsidiaries in the right manner.

The profitability of a subsidiary depends on the prices at which the inter-company transactions occur. These days the inter-company transactions are facing increased scrutiny by the governments. Here, when transfer pricing is applied, it could impact shareholders wealth as this influences company’s taxable income and its after-tax, free cash flow.

It is important that a business having cross-border intercompany transactions should understand the transfer pricing concept, particularly for the compliance requirements as per law and to eliminate the risks of non-compliance.

Risks and benefits

However, some of the risks and benefits associated with transfer pricing are as follows:

Benefits:

1. Transfer pricing helps in **reducing the duty costs** by shipping goods into high tariff countries at minimal transfer prices so that duty base associated with these transactions are low.

2. Reducing income taxes in high tax countries by overpricing goods that are transferred to units in those countries where the tax rate is comparatively lower thereby giving them a higher profit margin.

Risks:

1. There can be a **disagreement** among the organizational division managers as what the policies should be regarding the transfer policies.

2. There are **a lot of additional costs** that are linked with the required time and manpower which is required to execute transfer pricing and help in designing the accounting system.

3. It gets difficult to estimate the right amount of pricing policy for intangibles such as services, as transfer pricing does not work well as these departments do not provide measurable benefits.

4. The issue of transfer pricing may give rise to **dysfunctional behavior** among managers of organizational units. Another matter of concern is the process of transfer pricing is highly **complicated and time-consuming** in large multi-nationals.

5. Buyer and seller perform different functions from each other that undertakes different types of risks. For instance, the seller may or may not provide the warranty for the product. But the price a buyer would pay would be affected by the difference. The risks that impact prices are as follows

- Financial & currency risk
- Collection risk
- Market and entrepreneurial risk
- Product obsolescence risk
- Credit risk

Methods of Transfer Pricing
The five different methods of transfer pricing fall into two categories: **traditional transaction methods** and **transactional profit methods.** While the traditional transaction methods look at individual transactions, the transactional profit methods look at the company's profits as a whole. Each method takes a slightly different approach and has associated benefits and risks, which we'll explore in more detail in future articles. There's no right or wrong method—only the one that best fits a company's business model. Transfer pricing regulations specify that organizations select the method best-suited to their organization.

Below, we break down the different approaches to transfer pricing to explain how they work, the risks and benefits of each, and examples of how they are used.

Traditional Transaction Methods

Traditional transaction methods examine the terms and conditions of uncontrolled transactions made by third-party organizations. These transactions are then compared with controlled transactions between related companies to ensure they're operating at arm's length. There are three traditional transaction methods:

1. Comparable Uncontrolled Price Method

The comparable uncontrolled price (CUP) method compares the price and conditions of products or services in a controlled transaction with those of an uncontrolled transaction between unrelated parties. To make this comparison, the CUP method requires what's known as *comparable data*. In order to be considered a comparable price, the uncontrolled transaction has to meet high standards of comparability. In other words, transactions must be extremely similar to be considered comparable under this method.

The OECD recommends this method whenever possible. It's considered the most effective and reliable way to apply the arm's length principle to a controlled transaction. That said, it can be very challenging to identify a transaction that's appropriately comparable to the controlled transaction in question. That's why the CUP method is most frequently used when there's a significant amount of data available to make the comparison.

An example of the CUP transfer pricing method:

There are actually two ways to apply the CUP method: the internal CUP and the external CUP. The internal CUP relies on examples of comparable transactions the company has made with unrelated third parties. The external CUP looks at pricing of comparable transactions made between two unrelated third parties—which can be difficult to find. For this reason, the internal CUP method is preferred. The following is an example of the internal CUP method:

A U.S. car rental company needs to determine how to price the use of its brand name and logo by its Canadian subsidiary. The company's transfer pricing team must find an example of a licensing agreement the company has made with an independent third party to use their branding. If that arrangement is sufficiently comparable, the car rental company can apply the same price it charges the independent third party to its Canadian subsidiary for the use of the brand and logo.

2. The Resale Price Method

The resale price method (RPM) uses the selling price of a product or service, otherwise known as the resale price. This number is then reduced with a gross margin, determined by comparing the gross margins in comparable transactions made by similar but unrelated organizations. Then, the costs associated with purchasing the product—such as customs duties—are deducted from the total. The final number is considered an arm's length price for a controlled transaction made between affiliated companies.

When appropriately comparable transactions are available, the resale price method can be a very useful way to determine transfer prices, because third-party sale prices may be relatively easy to access. However, the resale price method requires comparables with consistent economic circumstances and accounting methods. The uniqueness of each transaction makes it very difficult to meet resale price method requirements.

An example of the resale price transfer pricing method:

A U.S. company that distributes running shoes buys shoes from a related company in Ireland. It also purchases similar shoes from another, unrelated supplier. Assuming that the terms and conditions of the related and unrelated party transactions are comparable, the RPM can be applied to ensure the Irish company charges its related U.S. distributor a price comparable to the price charged by the unrelated third-party supplier.

The RPM stipulates that the gross margin earned by the U.S. distributor on shoes purchased from the related company must be the same as the margin earned on sales of shoes purchased from the unrelated supplier. If the distributor makes a gross profit of $65 on each pair of shoes from the unrelated supplier sold for $100, the gross profit margin is 65%. This is the gross margin which must be used to determine the price of the shoes the distributor purchases from its related Irish supplier.

3. The Cost Plus Method

The cost plus method (CPLM) works by comparing a company's gross profits to the overall cost of sales. It starts by figuring out the costs incurred by the supplier in a controlled transaction between affiliated companies. Then, a market-based markup—the "plus" in cost plus—is added to the total to account for an appropriate profit. In order to use the cost plus method, a company must identify the markup costs for comparable transactions between unrelated organizations.

The cost plus method is very useful for assessing transfer prices for routine, low-risk activities, such as the manufacturing of tangible goods. For many organizations, this method is both easy to implement and to understand. The downside of the cost plus method (and really, all the transactional methods) is the availability of comparable data and accounting consistency. In many cases, there are simply no comparable companies and transactions—or at least not comparable enough to get an accurate, reliable result. If it’s not an apples to apples comparison, the results will be distorted and another method must be used.

An example of the cost plus transfer pricing method:

A French corporation produces products under contract for its German-based parent company and needs to determine the appropriate markup (gross cost plus) for the goods it sells to its German partner. If the French company has made similar comparable transactions with third parties, the markup used for those transactions can be applied to the sales the company makes to the related German company. If the French company has made no comparable third party transactions, then the transfer pricing team can identify several companies similar to the French manufacturer and apply those companies’ average gross cost plus to the transactions with the related German company.

Transactional Profit Methods

Unlike traditional transaction methods, profit-based methods don’t examine the terms and conditions of specific transactions. Instead, they measure the net operating profits from controlled transactions and compare them to the profits of third-party companies making comparable transactions. This is done to ensure all company markups are arm’s length.

However, finding the comparable data necessary to use these methods is often very difficult. Even the smallest variations in product features can lead to significant differences in price, so it can be very challenging to find comparable transactions that won’t raise red flags and be questioned by auditors.

4. The Comparable Profits Method

The comparable profits method (CPM), also known as the transactional net margin method (TNMM), helps determine transfer prices by looking at the net profit of a controlled transaction between associated enterprises. This net profit is then compared to the net profits in comparable uncontrolled transactions of independent enterprises.

The CPM is the most commonly used and broadly applicable type of transfer pricing methodology. As far as benefits go, the CPM is fairly easy to implement because it only requires financial data. This method is really effective for product manufacturers with relatively straightforward transactions, as it’s not difficult to find comparable data.

The CPM is a one-sided method that often ignores information on the counterparty to the transaction. Tax authorities are increasingly likely to take the position that the CPM is not a good match for organizations with complex business models, such as high-tech companies with intellectual property. Using data from companies who do not meet the OECD’s standards of comparability creates audit risk for organizations.

An example of the comparable profits transfer pricing method:

A U.S.-based clothing company with global reach establishes a Canadian distribution affiliate. The U.S. parent company supplies products, sets business strategies, finances the global operations, and owns the intellectual property (trademarks, designs, and operational know-how) for its global affiliates. The parent company needs to determine how much profit the Canadian distributor should earn for its operations.

The transfer pricing team identifies similar distributors in Canada, calculates their pre-tax profit margins, and establishes a typical profit margin range. Prices are set to allow the related Canadian distributor to earn a pre-tax profit that falls within that typical margin range.

5. The Profit Split Method

In some cases, associated enterprises engage in transactions that are interconnected—meaning they can't be observed on a separate basis. For example, two companies operating under the same brand might use the profit split method (PSM). Typically, the related companies agree to split the profits, and that's where the profit split method comes in.

This approach examines the terms and conditions of interrelated, controlled transactions by figuring out how profits would be divided between third parties making similar transactions. One of the main benefits of the PSM is that it looks at profit allocation in a holistic way, rather than on a transactional basis. This can help provide a broader, more accurate assessment of the company's financial performance. This is especially useful when dealing with intangible assets, such as intellectual property, or in situations where there are multiple controlled transactions happening at a time.

However, the PSM is often seen as a last resort because it only applies to highly integrated organizations equally contributing value and assuming risk. Because the profit allocation criteria for this method is so subjective, it poses more risk of being considered a non-arm's length outcome and being disputed by the appropriate tax authorities.

An example of the profit split transfer pricing method:

A pharmaceutical company affiliate performs research and development (R&D) to bring a new drug to market. The affiliate bears the costs and risks of launching the new drug. The two related parties need to determine the right profit split and decide that they'll use the contribution PSM to divide profits from sales of the new drug.

The two parties have invested a total of $500 million in bringing the medication to market. The R&D company invested $375 million—or 75% of the total investment. Therefore, 75% of the profits will go to the R&D company, with the remaining 25% going to the pharmaceutical manufacture

Segmentreporting

WhatisSegmentReporting?

Segmentreportingisthe reportingof the operatingsegmentsof a companyinthe disclosuresaccompanyingitsfinancialstatements.Segmentreportingisrequiredforpublicly-heldentities,andisnot requiredforprivatelyheldones. Segmentreportingisintendedtogiveinformationtoinvestorsandcreditorsregardingthefinancialresultsandpositionofthemostimportantoperatingunitsofacompany,whichtheycanuseasthebasisfordecisionsrelatedtothecompany.

UnderGenerallyAcceptedAccountingPrinciples(GAAP),anoperatingsegmentengagesinbusinessactivitiesfromwhichitmayearnrevenueandincurexpenses,hasdiscretefinancialinformationavailable,andwhose resultsare regularlyreviewedbythe entity'schiefoperatingdecisionmakerforperformanceassessmentandresourceallocationdecisions.
Followtheserulestodeterminewhichsegmentsneedtobereported:

- Aggregatetheresultsoftwoormoresegmentsiftheyhavesimilarproducts,services,processes,customers,distributionmethods,andregulatoryenvironments.
- Reporta segmentif it hasat least10% of therevenues,10% of theprofitor loss,or 10%

ofthecombinedassetsoftheentity.

- Ifthetotalrevenueofthesegmentsyouhaveselectedundertheprecedingcriteriacomprise lessthan75% of the entity'stotal revenue,thenadd more segmentsuntilyou reachthatthreshold.
- Youcanaddmoresegmentsbeyondtheminimumjustnoted,butconsiderareductionifthet otalexceedstensegments.

Theinformationyoushouldincludeinsegmentreportingincludes:

- Thefactorsusedtoidentifyreportablesegments
- Thetypesofproductsandservicessoldbyeachsegment
- Thebasisoforganization(suchasbeingorganizedaroundageographicregion,productlin e,andsoforth)
- Revenues
- Interestexpense
- Depreciationandamortization
- Materialexpenseitems
- Equitymethodinterestsinotherentities
- Incometaxexpenseorincome
- Othermaterialnon-cashitems
- Profitorloss

ThesegmentreportingrequirementsunderInternationalFinancialReportingStandardsa reessentiallyidenticaltotherequirementsjustnotedunderGAAP

Unit V
Performance Measures

What is profitability analysis?

When a company is incepted, one of the sole purposes of it is to make profits. Basically, to earn more than you spend is what every business owner wants for his company. Thus, to assess the growth of your business, careful study on profit is important, and that is pretty obvious. However, the nuances that secretly lie under various financial statements, will give you the real picture of your company's profits.

Analysing of the profits which is basically the money remaining from the capital after subtracting all the overhead costs, will help you keep a track of your business' performance. Profitability analysis allows companies to maximise their profit. Thus, resulting in maximising the opportunities that business can take advantage of, in order to continue growing in an extremely dynamic, competitive, and vibrant market. Profitability analysis helps businesses identify growth opportunities, fast/slow-moving stock items, market trends, etc, ultimately helping decision-makers see a more concrete picture of the company as a whole.

Importance of profitability analysis

While profitability analysis gives business owners a 360° view of your company's profits, different ratios that derive profitability ratios have different roles to play. Let's take a look at the importance of these ratios:

Gross profit margin

It is a measure of the profit earned on sales which denotes the profit part of the total revenue earned, after deducting the costs of goods sold (COGS). This report is extremely important as it covers the admin and office costs and also includes the dividends which are to be distributed to respective shareholders of the company. Higher the gross profit, the company will be more profitable. Gross profit margin is also used to assess the efficiency of cost management. So, if the ratio is low, the business owner can then identify these pain points and improve purchasing and production in terms of economy and effectiveness.

Net profit margin

It is the final ratio that validates the overall performance of a company. Any disturbances in other ratios will impact the net profit margin ultimately, thus this report is considered as one of the most important ratios. A low quick ratio would mean that sales have been low in a particular period, eventually impacting the net profit margin. This analysis will help investors to identify the cracks in the way they operate and take timely decisions to improve the company's performance.

Returns on equity

Returns on equity is the percentage of the earnings, which shareholders get in return for the investments made towards the company. Higher the ROE, higher will be the dividends shareholders will receive. This triggers more investors for your company ultimately aiding in keeping your company afloat in the market.

Returns on capital employed (ROCE) and Return on assets (ROA)

These returns measure the efficiency of a company in utilising of its assets. By evaluating ROCE, the management can take decisions that'll help them minimise the inefficiencies. Higher the ROCE, higher will be the efficiency in the production process of the company.

ROA is a measure of every penny of income earned on every penny of the asset owned by the company. Similar to ROCE, ROA also helps the management manage the utilisation of assets, diligently.

Profitability ratio analysis

Analysts and investors use profitability ratios to measure and evaluate a company's ability to generate income (profit) relative to revenue, balance sheet assets, operating costs, and shareholders' equity during a specific period of time. They show how well a company utilises its assets to produce profit and value to shareholders.

A higher ratio establishes that the company is on the profitable side and is generating enough revenue, profit and cash flow. This ratio analysis comes in handy while doing a comparative analysis with your competitors in the market or even with previous periods, to understand the current financial position of your firm.

Margin Ratios

To understand your company's financial status during a specific period, it is imperative to understand your company's ability to convert sales into profits. That is what margin ratio represents at various degrees of measurement. Some of the examples are gross profit margin, operating profit margin, net profit margin, cash flow margin, EBIT, EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization), NOPAT (Net Operating Profit After Tax), operating expense ratio, and overhead ratio.

Return Ratios

As the name suggests, return ratio us nothing but the company's ability to generate returns to its shareholders. Examples include return on assets, return on equity, cash return on assets, return on debt, return on retained earnings, return on revenue, risk-adjusted return, return on invested capital, and return on capital employed.

Advantages and Disadvantages of Profitability Ratios

Advantages and disadvantages of profitability ratios is an important thing to keep in mind before utilizing these ratios in analyzing a company. The ratio analysis is one of the important fundamental analysis tools, you can perform to judge whether the company is among the plausible investment category. You can do the ratio analysis of a company on a standalone basis or by comparing with the industry peers. Amongst various categories, we are going to discuss today the pros and cons of profitability ratios. Profitability ratio as one of the categories has subcategories. Whenever you deal with profitability ratios, you always think of profits as a percentage of something. Let's take some of the important ratios of under this category, that represents the entire profitability ratio's category, and discuss the benefits and disadvantages of the same.

List of Important Profitability Ratios

1. Net Profit Margin: Net Income/ Total Sales
2. Gross Profit Margin: (Revenue – Cost of Goods Sold) / Revenue
3. Return on Assets: (Net Income) /((Opening Assets at the beginning of the year +Closing Assets at the end of the year)/2)
4. Returns on Equity: Net Income / ((Opening Equity at the beginning of the year + Closing Equity at the end of the year)/2)
5. Return on Capital Employed: Earnings before Interest and Taxes / (Total Assets – Current Liabilities)

Advantages of Profitability Ratios

With the help of the ratios listed above, we will see the advantages of using the profitability ratios for analyzing a company's performance

Net Profit Margin – A Conclusive Ratio

First of all, the net profit margin is the most conclusive ratio for a business. Generally, if this ratio performs well in the current year and the trend is also growing, most likely the company is on a right track. Why do we call it a conclusive ratio? It is because if there are major issues with other ratios or the company's performance, it will have its impact on this ratio. It is a good idea to start the investigation or analysis by looking at this ratio.

Gross Profit Margin – Checks Basic Operations' Efficiency

What does a 40% gross profit margin mean? It means the cost of goods sold consumes 60% of the overall sales of the company. 40% of the sales take care of general and administrative expenses and net profit. So, higher this ratio, higher are the chances of improvement in net profit margins. The main advantage of this ratio is that it figures out if there is a problem in the basic operations of the company. If this margin is not sufficient to cover the administrative and other overheads, the net profit margin is going to be low or negative.

Return on Assets – Monitor the Efficiency in Utilizing the Assets

The advantage of using this ratio is that the management can monitor and then control the utilization of assets. Why is the utilization of assets important? Efficient and effective utilization of assets has a direct impact on profitability. With efficient asset utilization, a company creates a positive leverage effect by producing and selling more units against the same depreciation cost in the income statement.

Return on assets conveys how much net profit is generated by every dollar of investment in assets. Increasing return on the asset can simply mean that management is making the best use of the assets and vice-versa.

Return on Equity – The Reason for Equity Shareholders to Stay Invested

Like the net profit margin, the return on equity is the most widely used ratios. The advantage of this ratio is that It is comparable across the company's peer group. How much return do you generate for the equity investors is what matters for the equity investors. Are you generating beyond the minimum required rate of return? Calculation of this metric will answer your query. This metric is used in the calculation of residual income valuation. Residual income valuation is used in calculating the intrinsic value of equity. ROE greater than the required rate of return increases the intrinsic value of equity shareholders and thereby maximizes wealth.

Return On Capital Employed -Judges the Management Performance

Return on capital employed lets you know about the management performance in putting the capital to its most efficient use. With this metric, you can judge the management performance across different companies in the similar industry. At times, management compensations are based on the attainment of a set target of this particular metric. Even more, this metric can be compared with companies across different industries. The advantage of utilizing the ratio is that it judges the efficiency of the overall funds' utilization of the company. It covers both types of capital, the equity as well as debt.

Disadvantages of Profitability Ratios

Like nothing in the world is free of drawbacks, profitability ratios are not an exception. Let's see the cons of using the profitability ratios.

Net Profit Margin – Fails to Compare across Different Industries and % Representation misleads

Companies from different industries cannot be compared on the basis of net profit margin. E.g. – the net profit margin of IBM Corporation is not comparable with the Starbucks Corporation. A decrease in net profit margin may not necessarily be bad. The company may want to increase its market share by reducing prices and sacrificing the margins. The type of strategy the company adopts must also be taken into consideration. With this strategy, if the company is able to double the sales and achieve 1.4 times of increase in absolute profits in dollars, whether the decrease in net margin is worth? You know the answer.

Gross Profit Margin- Can't Rely upon as a Standalone Ratio

Gross profit margin may not convey the story like the net profit margin. Unlike net profit margin, the gross profit margin is not the final figure; if the sales general and administrative expenses take a toll on the gross profit margin. This metric cannot be compared with companies that belong to different industries. The disadvantage of this ratio is that we cannot interpret this ratio in isolation without having a look at the net profit margin

Return On Assets- Falls Prey to Manipulation

Companies can manipulate the return on assets metric by reducing the assets on the balance sheet. If you happen to compare the return on assets of 2 companies in the same industries then the choice of depreciation of the companies should also take into account. E.g.- If company A is following straight-line depreciation and company B, double declining balance method for depreciation. The company B will have a higher return on assets at the beginning than the Company A and lower return on assets in the end than company A. Therefore, choice of depreciation greatly affects this metric.

Return On Equity- Possibility of Being Bluffed

At times, companies manipulate return on equity by performing the buyback of equity shares. The buyback is a method wherein the company purchases its own shares at a premium to the market rate in order to address the undervalued equity of the company or the company may wish to buy back the shares to provide capital appreciation instead of giving dividends. Since the shareholder's equity reduces due to a buyback, the return on equity of the company increases. Please note, in this case, return on equity is increasing due to its decrease in the number of shares which decreases the shareholder's equity. The return on equity is not increasing because of the value creation in the company which should ideally be the case.

Return on Capital Employed- It does not reflect the market values of assets

First of all, a major drawback of return on capital employed is that it takes into account the book value of the assets in its calculations. The book value of the assets reduces either due to depreciation or the book value may not reflect the market value. E.g. – Book value of the land on the balance sheet may be $10000 but the actual market value may be $100,000. Therefore, you must look at aftermarket values while calculating this metric and also the book values which reduces due to the non-cash charge, depreciation.

Bird's view
Table of Contents

ADVANTAGES AND DISADVANTAGES OF PROFITABILITY RATIOS

RATIOS	FORMULA	ADVANTAGES	DISADVANTAGES
Net Profit Margin	$= \frac{\text{Net Income}}{\text{Total Sales}}$	A Conclusive Ratio	Fails to Compare Across Different Industries
Gross Profit Margin	$= \frac{\text{Revenue} - \text{COGS}}{\text{Revenue}}$	Checks Basic Operations' Efficiency	Can't Rely upon as a Standalone Ratio
Return On Assets	$= \frac{\text{Net Income}}{\text{Avg. Total Assets}}$	Monitor the Efficiency in Utilizing Assets	Falls Prey to Manipulation
Return On Equity	$= \frac{\text{Net Income}}{\text{Avg. Total Equity}}$	The Reason for Equity Shareholders to Stay Invested	Possibility of Being Bluffed
Return On Capital Employed	$= \frac{\text{EBIT}}{(\text{Total Assets} - \text{Current Liabilities})}$	Judges The Management Performance	It does not Reflect the Market Values of Assets

Business Unit Profitability Analysis

A large business intends to make a profit. Shareholders and directors focus on the bottom line to determine if the entire company has cleared a profit, but what about specific segments, or units, within the organization? As an office-equipment manufacturer, can we determine how the stapler product line is doing?

Business unit profitability analysis can help us determine how profitable a given business unit is. In the analysis, we will evaluate sales and expenses for that unit. Expenses include equipment, floor space, salaries, etc. There are a couple of approaches to business unit profitability analysis, but the underlying principle is the same:

- What is our income for the business unit?
- What are the expenses?

We'll get into the details below, but we can consider a business unit profitable if sales are greater than the expenses. Once that question is answered, we can ask if that margin is good enough. Let's take a look at some approaches we can use to analyze business unit profitability.

Analytical Approaches

There are a couple of ways to approach business unit profitability analysis. We can use a full cost approach or a contribution approach.

Full Cost Approach

The **full cost approach** looks at ALL expenses related to the business unit and assumes they impact that business unit. For example, the building space used to make both staplers and binders still benefits the stapler production: according to the full cost approach, these expenses count against the stapler business unit also.

Other full cost expenses could include managers' or directors' salaries, taxes, rent, utilities, and marketing.

Contribution Approach

Much like product profitability analysis, the **contribution approach** narrows the focus to only look at sales and expenses related directly to the stapler product line. Profit margin is then sales minus direct expenses.

The benefit to this approach is that it cuts out those other expenses, such as floor space for production.

8 Steps to Successful Profitability Analysis

When a company is losing money, the focus is on how to reverse that trend. When your revenue exceeds your expenses, however, an organization may be in less of a hurry to break that information down – which is where profitability analysis comes into play.

The truth is, while you may be turning a profit, you may not be making as much as you could be. When profit is only viewed as a binary – yes, we’re making more than we’re spending or no, we’re not – the real story may be masked by simplicity. For instance, what if you have one product or service that is wildly profitable, and another that is losing money?

Gaining a greater understanding of your profitability requires more analysis than a financial statement and a balance sheet. By doing a profitability analysis, companies can identify areas in need of attention. We’ve compiled 8 things that you should do and those you should avoid as you prepare a profitability analysis.

One: Do (at least) 3

There are 3 key analyses that you can do to help determine profitability. Don’t be tempted to stop at only one or two of them. Each of them provides a different view of your situation.

Gross Profit Margin:

Your gross profit margin is the amount of your sales revenue minus the cost of your goods. In conjunction with your other numbers, your gross profit margin can tell you if your products are profitable enough, if you need to increase sales or if your expenses, like sales costs, are too high.

Net Profit Margin:

A little more complicated than your Gross Profit Margin, the Net Profit Margin is sometimes simply called the profit margin. To get this number, subtract your expenses from your revenues to get your net profit. Then divide that by your revenue. This will give you a 10,000 foot view of your overall profitability.

Segment Profit:

Few businesses have only one product or service. It's important to understand the profit for each of your lines of business or products. You can calculate this either by taking the revenue for the segments and subtracting the associated costs or can include a portion of overhead costs – like rent, utilities, salaries, etc. – into the calculation.

Two: Now Do Them for The Past

Once you've done those calculations for your current numbers, go back and do them for quarters or years past. By comparing your current numbers by your past performance, you'll know if you're moving in the right – and more profitable – direction and be able to pinpoint areas that need attention.

Three: Benchmark Industry Profitability Ratios

Your profit margin might look weak to you, but is it? Different industries have different levels of profitability. Real estate, health care, and financial services tend to have high profit margins. Other industries, like autos, and grocery, have margins that are much lower. Benchmark your industry before looking at your profitability so you know what to aim for.

Four: Understand Customer Valuation

Your customers are the source of your revenue – and your profits. But how much are they really worth? Are you spending like crazy to acquire new customers? Are your service customers better at producing profits than your products? Obviously, this data must be taken in context with the rest of the business. A low valuation customer who typically later purchases high margin items is a good investment. But you need to understand which is which before you can make smart strategy decisions.

Five: Don't Assume Your Best Customers are Your Most Valuable

When discussing customers in finance, we frequently reference the 20:80 rule – 20 percent of your customers bring in 80 percent of your revenue. Does that make those customers the most valuable? It's best to look closely at the value of each customer. While some may bring you the majority of your profits, they may not be profitable. That 20 percent could be the ones with the biggest discounts or those that purchase the lowest margin services or products.

Six: Don't be Held Back by Tools

To be effective, profitability analysis should be done regularly. It can be difficult to do, though, when you use a tool that has high overhead to performing calculations, like spreadsheets. A tool built for enabling fast calculations and pulling in a lot of data can make the difference between performing these analyses often enough to help, or infrequently enough that they mean little to decision making.

Seven: Free Up Time for Deeper Analysis

This is another area where the right tool can make all the difference. Tools that remove tedious data entry and model management free up time for more in-depth analysis. For instance, in the interest of time, many finance leaders turn to apportioning as a tool for cost allocation. Apportionment doesn't give the full picture, however. Driver-based cost allocation results in a more accurate analysis but takes more time. When you alleviate manual tasks with the right tools, you have time to invest in deep analysis.

Eight: Don't Stop at Insights

The results of these analyses can, and will, provide much deeper insights for the organization to understand what your profitability looks like. Your analysis shouldn't stop there. Instead, the results should drive finance teams to ask better questions and use data to help find the answers.

Customer Profitability Analysis Definition

CPA is a managerial accounting method that allows businesses to determine the overall profit a customer generates. A profitable customer is someone who generates a revenue stream greater than the cost of their acquisition, selling, and serving. Companies calculate the CPA on a customer level or for the entire customer group.

When companies are more focused on products, departments, and locations of their offices, they often tend to lose focus on the customers. As a result, the companies have to sometimes bear the cost of maintaining unprofitable customers which is detrimental to their business.

CPA allows companies to evaluate their customers and know how beneficial it is for them to keep the customers. Based on this value they can decide upon the cost of serving them or even to decide whether to continue or let them go.

It has been found in a study that the size of the customer is not directly proportional to their profitability. Sometimes even the large-sized customers can turn out to be unprofitable ones for a business.

Customer Profitability Formula

To calculate CPA, you need the annual profit per customer, and the total duration a customer stays with your business.

Annual profit = (Total revenue generated by the customer in a year) – (Total expenses incurred to serve the customer in a year)

The total revenue can be generated by the following sources that you need to include:

- Recurring revenue
- Upgrades to the higher plans
- Cross-buying relevant products

And, expenses can be incurred from the following sources which also you need to consider:

- Cost of customer service
- Maintaining a customer success team
- Loyalty perks
- Operational cost

Finally, when you have the annual profit, the customer profitability analysis calculation goes like this:

CPA = (Annual profit) x (no. of years customer stays with company)

Benefits of Customer Profitability Analysis

CPA allows you to understand the business from a profitability viewpoint. Methods like activity-based costing help you assign a cost to each activity associated with a product or service. Businesses can leverage customer account profitability analysis in the following areas to benefit from this method.

Trim out the cost factors

One of the most common exercises to analyze customers is customer segmentation. After segmentation, businesses can segregate the group of customers that are costing more than others. It is still viable to do business with a low-profit generating group. But on a deeper analysis, if you find a group of customers that are costing more than the revenue they are generating, then it is advisable to shut your services to them. By letting them go, you are making your customer base more efficient in your growth engine.

Marketing to the right segment

When the customer segmentation according to profit range has been identified, they can be used for further operations. The attributes of the most profit-generating customer group must be recorded and used for further acquisition. Marketing teams can design their campaigns based on those attributes to attract more such customers. Furthermore, based on their profitability range, marketers can decide what deals and discounts they can offer to the prospects.

It takes commonly from five or six months to more than a year to recover the customer acquisition cost. CPA can give the estimated duration for the ROI on marketing by extrapolating on the attributes of customer segmentations with different profit margins. This helps in setting up the overall budget for marketing and advertisements that a company can afford.

Customized retention strategy

After finding the customer group with different profitability, companies can customize their retention strategies for each group. For the customers with the highest profitability, companies can afford to give a service of the highest quality. That means, they can spend more on serving those elite customers.

What engagement model to choose from – high-touch or low-touch? How many CSMs must be employed for a specific group of customers? Questions like these can be easily answered when you know the cost behind each choice and the profit a customer group would generate. To retain high-value customers, through CPA, you get a clear margin of how much you can spend on building their loyalty. Initiatives like customer loyalty programs can be easily designed based on the profit margin for a customer segment.

Enhancing operational efficiency

The main reason for a customer group to generate lower profits is not always the customer. There might be few flaws in the internal operations of the company that is costing them more to serve the customers.

According to a customer profitability analysis example, let’s say the lower profit customer group is consuming a lot of resources to deal with the same issue in a product over and over again. Instead of allocating resources to that recurring issue, it might be beneficial for the company to build a feature in the product itself that resolves the issue. This would not only lower the operational cost but would also make your product better for future customers.

How to do Customer profitability analysis

To do a Customer profitability analysis, you need to follow a certain approach. The key is to segment the customer base, determine revenues, attribute costs and also have an activity-based costing approach. Let us know all the steps in depth here.

Segmenting customers

The base for a profitability analysis is customer segmentation. This will differ across industries and companies. It can be demographic- based on customer age, income, area, etc. It can also be psychographic that is based on customer needs, behaviours, values, interests, and attitude.

Revenue Attribution

Once segmentation is done, you need to calculate revenue for each segment. The annual revenue is a sum of all segments. Adjustments like discounts, fees, service charges must be included and adjusted accordingly.

Cost attribution

Calculate the annual cost per segment. This will be customer costs, service costs, product costs, sales, marketing, and distribution costs. These costs are usually hidden and need to be added to determine the cost attribute.

Analysis – Profit, Less profitable, unprofitable

Profitable customer segmenting also requires analysis of segments. Classifying those segments that have better revenues over costs is necessary. It must include calculating profitability over the lifetime of customers.

Develop strategies to maximise profits based on focus on specific segments

The next step is to create strategies that increase revenues, create long term relationships, and enhance customer retention and loyalty programs. Strategies can include elimination of least profitable aspects, re-engineering customer groups into profitable ones by increasing revenue and decreasing costs.

Review the Impact

Any new strategy or practice needs to be implemented and worked up accordingly. This needs to be reviewed after appropriate periods of time to understand impact on customers.

Wrapping Up

While client profitability analysis seems like a very beneficial process, there are few flaws too associated with it. Companies most often do not have the right resources to accurately calculate the CPA. The activity-based costing, and hence customer profitability analysis, is not easy to calculate because the cost of resources is often blurry for each activity.

The cost of attracting and retaining the customer must be calculated over the entire lifetime of the customer. Hence, sometimes customer lifetime value gives a more clear picture than CPA. It gives you the entire value a customer would generate in their lifetime rather than the annualized value of a CPA. Nevertheless, the CPA can be a useful tool to re-examine your business strategies and allocate the right resources to serve the right customers.

Return on investment
What Is Return on Investment (ROI)?

Return on investment (ROI) is a performance measure used to evaluate the efficiency or profitability of an investment or compare the efficiency of a number of different investments. ROI tries to directly measure the amount of return on a particular investment, relative to the investment's cost.

To calculate ROI, the benefit (or return) of an investment is divided by the cost of the investment. The result is expressed as a percentage or a ratio.

KEY TAKEAWAYS

- Return on Investment (ROI) is a popular profitability metric used to evaluate how well an investment has performed.
- ROI is expressed as a percentage and is calculated by dividing an investment's net profit (or loss) by its initial cost or outlay.
- ROI can be used to make apples-to-apples comparisons and rank investments in different projects or assets.
- ROI does not take into account the holding period or passage of time, and so it can miss opportunity costs of investing elsewhere.

How to Calculate Return on Investment (ROI)
The return on investment (ROI) formula is as follows:

{ROI} = {Current Value of Investment}-\{Cost of Investment}

{Cost of Investment}ROI=Cost of InvestmentCurrent Value of Investment−Cost of Investment

"Current Value of Investment" refers to the proceeds obtained from the sale of the investment of interest. Because ROI is measured as a percentage, it can be easily compared with returns from other investments, allowing one to measure a variety of types of investments against one another.

Uses of ROI

The **uses of ROI** are there in every business and investments that any person does or make.

- It is the *simplest measurement* of the percentage of profit made by the investor in his investment.
- ROI helps in deciding between different *investment opportunities*.
- It can be used for calculating or comparing the returns of the past as well. For example, if you are going to invest in a share, you would like to check how it had performs in the previous 5-10 years and the first thing you would check about the company is their ROI. ROI changes from time to time depending on various factors; it can be used as the signal for *monitoring the investment*. When a positive ROI is good for an investment, a negative ROI might call for a selloff of the investment.
- For taking *investment decision*, ROI plays a great role. It helps in comparing the high and the low performing investment. This, in turn, helps the investors and the financial planners, advisors and the managers to optimize their investment returns by investing in the investments with the higher returns.

Benefits of Return on Investment (ROI)

The **benefits of ROI** are as follows:

- It helps the investors and the financial professional to quickly check the prospect of an investment and thus he saves on time and money.
- ROI also helps in exploring as well as measuring the potential returns on different investment opportunities.
- It assists in understanding and measuring the benefits of investment in particular departments as well.
- It helps to measure the competition around in the market.
- The most important benefit of using ROI for investment decision is that it is simple but effective.
- The calculation of the ROI is one of the simplest calculations in financial ratios.
- ROI is understood by the layman as well, it is universally accepted the concept of finance and investment and business as well.

Limitations of Return on Investment (ROI)

There are certain **limitations of ROI** as well which are explained below:

- In ROI calculation, the time factor is completely ignored which is a major drawback of the measure.
  To understand these let's see an example, MR. X invested INR 10000 in shares of Wipro in 2011 and sell off his investment in 2013 for INR 15000. So, his ROI is 50% while Mr. Y invested the same amount in the shares of SBI and sell off the shares in 2015 for INR 15000. So ROI of Mr. Y's investment is 50% as well. But the time for which Mr. X and Mr. Y invested the amount is different. When the former ripped 50% profit on investment in just 2 years, the latter took 4 years to earn the same. We all know that "time is money", the actual worth of the 50% profit is not same to both the investors. In real terms, if we include inflation and time value of money then the profit earned by Mr. Y is less than the 50% profit of Mr. X.
- Different calculation process of the ROI makes it confusing to a different While a company calculates using one formula, the investor might calculate using other, and then there creates a difference of opinion and confusion.

Conclusion

Therefore, **Return on Investment** can be used to measure the profit of an investment but it is better to evaluate the investments against proper time frame as well to get the real profit margins or the percentage of profit.

Residual Income

What Is Residual Income?
Residual income is income that one continues to receive after the completion of the income-producing work. Examples of residual income include royalties, rental/real estate income, interest and dividend income, and income from the ongoing sale of consumer goods (such as music, digital art, or books), among others. In corporate finance, residual income can be used as a measure of corporate performance, whereby a company's management team evaluates the income generated after paying all relevant costs of capital. Alternatively, in personal finance, residual income can be defined as either the income received after substantially all of the work has been completed, or as the income left over after paying all personal debts and obligations.

What is Residual Income?

Residual income (RI) can mean different things depending on the context. When looking at corporate finance, residual income is any excess that an investment earns relative to the opportunity cost of capital that was used

In simple words,

- Personal residual income is not the result of a job or hourly wages—it requires an initial investment either of money or time with the primary objective of earning on-going revenue.
- Residual income is regularly referred to as "passive income" for individuals or businesses.
- Examples of residual income include real estate investing, stocks, bonds, investment accounts, and royalties.
- For equity valuations, equity charge is calculated as the equity capital multiplied by the cost of equity.
- Corporate residual income is leftover profit after paying all costs of capital.

How Residual Income Works

Residual income measures net income after taking into account all required costs of capital related to generating that income. Other terms for residual income include economic value-added, economic profit, and abnormal earnings. Although residual income is sometimes known as passive income, side hustles can be used to boost personal residual income.

Types of Residual Income

Equity Valuation

In equity valuation, residual income represents an economic earnings stream and valuation method for estimating the intrinsic value of a company's common stock. The residual income valuation model values a company as the sum of book value and the present value of expected future residual income. Residual income attempts to measure economic profit, which is the profit remaining after the deduction of opportunity costs for all sources of capital.

Residual income is calculated as net income less a charge for the cost of capital. The charge is known as the equity charge and is calculated as the value of equity capital multiplied by the cost of equity or the required rate of return on equity. Given the opportunity cost of equity, a company can have positive net income but negative residual income

Corporate Finance

Managerial accounting defines residual income in a corporate setting as the amount of leftover operating profit after paying all costs of capital used to generate the revenues. It is also considered the company's net operating income or the amount of profit that exceeds its required rate of return. Residual income is typically used to assess the performance of a capital investment, team, department, or business unit.

The calculation of residual income is as follows: Residual income = operating income - (minimum required return x operating assets).

Personal Finance

In personal finance, residual income is known as disposable income. The residual income calculation occurs monthly after paying all monthly debts. As a result, residual income often becomes an essential component of securing a loan.

A lending institution assesses the amount of residual income remaining after paying other debts each month. The greater the amount of residual income, the more likely the lender is to approve the loan. Adequate levels of residual income establish that the borrower can sufficiently cover the monthly loan payment.

Benefits of Residual Income Valuation

Generally, residual income valuation is suitable for mature companies that do not give out dividends or follow unpredictable patterns of dividend payments. In this regard, the residual income model is a viable alternative to the dividend discount model (DDM).

Additionally, it works well with companies that do not generate positive cash flows yet. However, an analyst must be aware that such an approach is based mostly on forward-looking assumptions that can be manipulated or are prone to various biases.

Along with the discounted cash flow (DCF) model, residual income valuation is one of the most recognized valuation approaches in the industry. Although the approach is less well-known, the residual income model is widely used in investment research. (Note that residual income valuation is an absolute valuation model that aims to determine a company's intrinsic value).

Strength of the residual income model include:

- The model gives less weight to terminal value.
- RI Models use readily available accounting data.
- It can be used to value non-dividend paying companies.
- It can be used to value companies with no positive expected near-term free cash flows.
- It can be used when cash flows are unpredictable.

Weakness of the residual income

- The model is based on accounting data that is prone to manipulation.
- The accounting data may need adjustments.
- The model assumes that the clean surplus relation holds good.
- The model assumes that the cost of debt is equal to the interest expense.

Residual income models are most appropriate when:

- A company does not pay dividend
- A company's expected free cash flows are negative
- When there is uncertainty in forecasting terminal values

Residual income models are not appropriate when:

- The clean surplus relationship does not hold.
- The determinants of residual income such as book value and ROE are not predictable,

INVESTMENT BASE ISSUES

Common Challenges for New Investors

Learningto invest is an essential part of any comprehensive financial plan. Without it, you will eventually hit a plateau in your financial growth. However, many people don't invest, either because they think it's risky or because they don't understand it. The following are a few challenges that first-time investors struggle with and how you can overcome them.

Information Overload

Many people looking to get involved with the stock market google around a bit to discover the basics and quickly find themselves overwhelmed by the sheer amount of seemingly complex and even contradictory advice on the internet. Luckily, many of the most reliable trading strategies used by successful investors are quite timeless. New investors may find it easier to avoid the noise and use books as a resource to get started.

Unknown Risks

New investors may not know about the hidden risks in many seemingly simple investment strategies. This can cause their portfolios to take large hits early on in the process. To combat this pitfall, it's important to be as informed as possible. Make sure to be familiar with the risks involved with margin, leverage, options, futures, etc., before considering them as an investment option.

Limited Capital

One of the biggest challenges that new investors face is having limited capital available to invest. This is only compounded when certain financial instruments are too expensive. However, these issues can often be solved by looking into "partial shares."

Partial shares are essentially workarounds that allow you to invest in equity at a lower price. A couple of common examples are the use of REITs to combat real estate investment challenges or using automated investing tools with low minimum deposits, many of which we review right here on this website.

Over-Diversification

This challenge is almost always self-inflicted. Many new investors feel they need to invest a bit in everything to shield themselves from risk. However, over-diversification can significantly stunt your portfolio's growth. It is often best to pick 2-3 options to invest the majority of your portfolio in.

Bad Timing

Though the least common of these five challenges, some new investors go into the market right before a financial downfall. This has caused investors to lose money before making any! However, this risk can easily be mitigated by dollar-cost averaging, a strategy where you invest into the market bit by bit and mitigate larger fluctuations in the value in your portfolio over a long period.

Not Getting Help

It's risky to start investing without any outside help. Especially when you're getting started, you should be using some form of investment advising, whether it's automated or live. This will give you added assurance that you'll see a return on your money. There are many online resources such as this website, Investopedia, or Wealthsimple's free Investing Master Class to learn about personal finances and investing before jumping into the deep end.

Not Getting Your Personal Finances in Order

If you don't have your personal finances in order before you start investing, you might be fighting an uphill battle.Ensure all of your unsecured debt is completely paid off so you aren't paying high interest rates, which are almost always higher than any investment gains you might realize. If you have credit card debt, pay that off first. You can use a service such as Tally Advisor to get your debt organized and help you pay it off faster. Tally also has an option that gives you a lower-interest loan to help you pay off your credit card debt, so you aren't stuck running on a financial hamster wheel for years down the road.

The Challenges of Investing in a Modern World

When speaking about investing, people often make statements to the effect that the tried-and-true investment basics haven't changed in decades: as long as you stick to these principles, you have a good chance of being successful. While this may be true in a few instances—for example, buy low and sell high—the investing landscape has been vastly transformed in most other respects. There are many unique challenges that modern investors face.

Incredible Volume and Speed of Information

Perhaps the most daunting challenge that modern investors face is the sheer speed and volume of information. In the past, solid information about publicly-traded companies was hard to come by outside of the annual and quarterly reports. The Wall Street Journal and a limited number of finance-related publications attempted to collect business news and disseminate it. But this news moved to the greater public at the speed of print (if it reached them at all). In order to be reported, a story had to be significant; even then, it had to be written up, printed, and delivered.

In simple words,

- The investing landscape has been vastly transformed so that there are many unique challenges that modern investors face.
- Perhaps the most daunting challenge that modern investors face is the sheer speed and volume of information.
- With time, many investors learn to filter out information and create a select pool of reliable sources that match their investing tastes.
- Even if you have a good handle on quality information, you can still get burned when inaccurate information or basic uncertainty hits the market.
- Advertising can sometimes push an investor toward an edge by hyping an investment that isn't necessarily the best fit.

Now, even obscure companies can produce a constant stream of information—from the daily price fluctuations in the stock, announcements, and posts on dedicated message boards. When there is so much information available at any given time, it can be difficult to identify what is really important.

Finding the Right Resource

The difficulty of finding the right resource is tied to the challenge of there being too much information available. As an investor, how do you find the good resources in the crowd? To be clear, having lots of choices and easy access to free resources is an overall win for the modern investor. But research can be daunting when there are so many choices. While investing primarily deals in facts, opinion colors many areas (such as whether technicals matter more than fundamentals).

With time, many investors learn to filter out information and create a select pool of reliable sources that match their investing tastes. Until then, however, it is hard to avoid being overwhelmed by the range and variety of opinions out there.

The Reactionary Market

Even if you have a good handle on quality information, you can still get burned when inaccurate information or basic uncertainty hits the market. Inaccurate information still hits the market, even though the time to correction/exposure is often shorter. Inaccuracies can be honest mistakes, malicious rumors, or even financial fraud on the part of corporations. More importantly, the financial markets are so addicted to the constant information flow that an interruption in the flow or genuine moments of uncertainty can be worse than bad news.

Market reactions have always been extreme, but the increasingly global reach of information has given investors more reasons to overreact (literally on a per hour basis). It doesn't take a great leap of imagination to see good or bad consequences with every headline that pops up in the feed.

The Choices

When does choice become overwhelming? There are conflicting studies about the limits of the human mind when faced with a variety of choices. Research suggests that we chunk choices into a manageable few (between three and eight, for example). This works in an ice cream shop with five types of ice creams. But the world of finance offers far more than eight types of stock investments. When faced with all these choices, we may attempt to find shortcuts to chunk our options down to a few. This is useful, but it may also lead to us discounting the better option. For example, someone looking for regular income may chunk their options down to dividend-paying utility stocks when they may have been better served by a dividend exchange-traded fund (ETF).

The Role of Advertising

The marriage of investments and advertising has been a boon and a bane to investors. On one hand, advertising has helped familiarize investors with a wider range of investment vehicles available today. The modern investor is more aware of the available investments beyond stocks, bonds, and term deposits.Most will be able to explain mutual funds, index funds, ETFs, and probably options and mortgage-backed securities as well.

Knowledge is a great thing, but advertising can sometimes push an investor toward an edge by hyping an investment that isn't necessarily the best fit. Take mutual funds, for example. Quite often, an investor with a limited amount of capital is better off taking the lowest fee investment option (index fund or ETF) compared to higher-fee, professionally managed mutual funds. Advertising, however, can change this relatively straightforward math by playing up the advantages of professional management while failing to mention fees. So, if the professional manager is not up to snuff, then advertising has cost the investors market returns—plus the management fee.

The Bottom Line

It is true that some investors have been successful using traditional methods and simply shutting their doors against the modern world. This list includes famous fund managers Warren Buffet and John Templeton.[4]

For most of us, however, the flow of information is comforting and helps us feel more confident in our decisions. The trick is finding the right balance when taking in information and turning it into action. In fact, most investors can survive the modern information barrage with some very traditional advice–measure twice, cut once. In other words, take the time to evaluate the information in front of you before making buy or sell decisions.

Key Performance Indicators (KPIs)

What Are Key Performance Indicators (KPIs)?
Key performance indicators (KPIs) refer to a set of quantifiable measurements used to gauge a company's overall long-term performance.

KPIs specifically help determine a company's strategic, financial, and operational achievements, especially compared to those of other businesses within the same sector.

In simple words,

- Key performance indicators (KPIs) measure a company's success versus a set of targets, objectives, or industry peers.
- KPIs can be financial, including net profit (or the bottom line, gross profit margin), revenues minus certain expenses, or the current ratio (liquidity and cash availability).
- Customer-focused KPIs generally center on per-customer efficiency, customer satisfaction, and customer retention.
- Process-focused KPIs aim to measure and monitor operational performance across the organization.
- Generally speaking, businesses measure and track KPIs through business analytics software and reporting tools.

Understanding Key Performance Indicators (KPIs)
Also referred to as key success indicators (KSIs), KPIs vary between companies and between industries, depending on performance criteria.

For example, a software company striving to attain the fastest growth in its industry may consider year-over-year (YOY) revenue growth, as its chief performance indicator. Contrarily, a retail chain might place more value on same-store sales, as the best KPI metric in which to gauge its growth.

Key performance indicators (KPI) gauge a company's output against a set of targets, objectives, or industry peers.

Types of Key Performance Indicators (KPIs)
Financial Metrics
Key performance indicators tied to the financials typically focus on revenue and profit margins. Net profit, the most tried and true of profit-based measurements, represents the amount of revenue that remains, as profit for a given period, after accounting for all of the company's expenses, taxes, and interest payments for the same period.

Calculated as a dollar amount, net profit must be converted into a percentage of revenue (known as "net profit margin"), to be used in comparative analysis.

For example, if the standard net profit margin for a given industry is 50%, a new business in that space knows it must work toward meeting or beating that figure if it wishes to remain competitively viable. The gross profit margin, which measures revenues after accounting for expenses directly associated with the production of goods for sale, is another common profit-based KPI.

A financial KPI that's known as the "current ratio" focuses largely on liquidity and can be calculated by dividing a company's current assets by its current debts.

A financially healthy company typically has sufficient cash on hand to meet its financial obligations for the current 12-month period. However, different industries rely on different amounts of debt financing, therefore a company ought to only compare its current ratio to those of other businesses within the same industry, to ascertain how its cash flow stacks up amongst its peers.

Customer Metrics
Customer-focused KPIs generally center on per-customer efficiency, customer satisfaction, and customer retention.

Customer lifetime value (CLV) represents the total amount of money that a customer is expected to spend on your products over the entire business relationship.

Customer acquisition cost (CAC), meanwhile, represents the total sales and marketing cost required to land a new customer. By comparing CAC to CLV, businesses can measure the effectiveness of their customer acquisition efforts.

Process Performance Metrics
Process metrics aim to measure and monitor operational performance across the organization.

By dividing the number of defective products by total products produced, for example, businesses can measure the percentage of defective products. Naturally, the goal would be to get this number down as low as possible.

Throughput time represents the total amount of time it takes to run a particular process. For example, a drive-through restaurant throughput can measure how long it takes to service an average customer; from the time they make their order to the time they drive away with their food.

Limitations of Using Key Performance Indicators (KPIs)
Some of the disadvantages to using KPIs include:

- The long time frame required for KPIs to provide meaningful data
- They require constant monitoring and close follow up to be useful
- They open up the possibility for managers to "game" KPIs
- Quality has a tendency to drop when managers are hyperfocused on productivity KPIs
- Employees can be pushed too hard aiming specifically for KPIs

What Are the 5 Key Performance Indicators?
KPIs vary from business to business. But in general, five of the most commonly used KPIs include:

1. Revenue growth
2. Revenue per client
3. Profit margin
4. Client retention rate
5. Customer satisfaction

How Do You Measure KPIs?
It depends on the actual KPI being measured. But generally speaking, businesses measure and track KPIs through business analytics software and reporting tools.

What Is a Good KPI?
A good KPI has the following attributes:

- Provides objective and clear information of progress towards an end-goal
- Tracks and measures factors such as efficiency, quality, timeliness, and performance
- Provides a way to measure performance over time
- Helps make more informed decisions

How Do I Create a KPI Report?
Follow these general steps to create a KPI report:

1. Create an overview or introduction
2. Clearly define the KPIs
3. Present your KPIs using appropriate graphs, charts, and tables
4. Make final edits to the report and distribute

The Bottom Line
KPIs offer an effective way to measure and track a company's performance on a variety of different metrics. By understanding exactly what KPIs are and how to implement them properly, managers are better able to optimize the business for long-term success.

If you manage a team, there's a good chance you've heard of key performance indicators (KPIs). **In its simplest form, a KPI is a type of performance measurement that helps you understand how your organization or department is performing.** (To get a more in-depth description, read this article,

What Is A KPI?A good KPI should act as a compass that shows whether you're taking the right path toward your strategic goals.

The trouble is, there are thousands of KPIs to choose from. If you choose the wrong one, then you are measuring something that doesn't align with your goals. *How, then, should you go about selecting the right KPIs for your organization?*

If you've found yourself asking that very same question, you're not alone. It's not unusual for companies to stray off course as a result of using the wrong measures. But the sooner you uncover your mistakes, the better—and you can always get back on track by revisiting your KPIs.

In this article, we'll shed some light on the process of choosing and tracking KPIs so you're better positioned to select the right ones for your organization. We'll also share 18 meaningful key performance indicators that can be applied to most companies.

Choosing & Tracking KPIs: A Step-by-step Guide

It is frequently said that "What gets measured gets done," but how does the measuring itself get done? Below are the important steps to consider in effectively tracking KPIs as a part of your **performance management framework.**

Step 1: Choose one or two measures that directly contribute to each of your objectives.

While your organization has many moving parts that are integral to its operations and performance, it is not possible, or efficient, to track *everything* going on internally. For one thing, not all measures are important enough to track. For another, tracking too many measures creates unnecessary work that ultimately won't be useful.

Instead, choose one or two metrics for each of your objectives that will be most helpful in achieving them. Multiple metrics could apply, but only a couple of them will be impactful enough to improve performance.

For instance, say your organization has an objective to improve your employee training and development programs. You could measure the percentage of trained employees or training time, but neither of these correlate well with the real result you're looking for: developing peoples' skills to handle more advanced roles. A better measure might be a reduction in errors as a result of the training, for instance.

Step 2: Make sure your measures meet the criteria for a good KPI.

In addition to making sure your chosen KPIs are true indicators of performance, they should also have some additional characteristics that will **signal their effectiveness**. Ask these questions about each KPI you're considering:

- Can it be easily quantified?
- Are we able to influence/drive change using this KPI, or is it out of our control?
- Does this KPI connect to our objective as well as overall strategy?
- Is it simple to define and understand?
- Can it be measured in both a timely and accurate manner?
- Does it contribute to a broad range of perspectives – i.e. Customer, Financial, Internal Processes, Learning and Growth?
- Will it still be relevant in the future?

If you answer "no" to many of these questions, it may be a sign that the KPI either needs to be altered or replaced altogether.

Step 3: Assign responsibility for each KPI to specific individuals.

KPIs are an important tool in measuring progress, but they are more likely to be acted upon if someone is held responsible for tracking and reporting on them. An added benefit: The responsible party is also usually more inclined to *want* the measure to succeed, rather than accept underperformance. Even if all the person's responsible for is reporting on their KPI, you can bet they'd rather report good news than bad news—which motivates them even more.

You may have an analyst responsible for collecting the data. This is important, but maybe more important is having a business leader who is responsible for "reporting" on the measures. The business leader should be able to analyze the results, put the data in context, and explain whether performance is good or bad and why. The individual who is responsible for the measure will be able to influence the resources dedicated to improving the measure.

Step 4: Monitor and report on the KPIs.

Finally, it's necessary to continually review your KPIs and their performance on a monthly, quarterly, or other predefined reporting frequency. Regular monitoring makes it easy to see the time frame in which something may have underperformed or overperformed, as well as what may have happened within this period to cause the change.

To ensure the whole team is on the same page—and because many measures and goals are interconnected—it's crucial to report these findings to all relevant parties. Making use of **customizable dashboards** is a great (and simple) way to report to different audiences. You can make one dashboard for departments working on KPIs, and another that gives a high-level overview to executive teams.

You can improve your KPIs just by changing the way you track them.

Many organizations use spreadsheets to track KPIs, a method that often comes with issues like version control and calculation errors. In addition, tracking KPIs in spreadsheets takes a lot of time.

Leveraging a more advanced performance management software like **ClearPoint** has a lot of benefits. While the time you'll save in tracking and reporting alone is well worth the investment (some of our customers reduced the time they spent gathering and reporting data by **89%**), another extremely useful—and unique—feature of our software is its ability to link KPIs to organizational objectives.

For companies that are serious about strategy execution, the ability to link KPIs to objectives is significant in two very important ways:

1. **It becomes possible for all your employees to see how their work impacts progress toward organizational goals.** With ClearPoint, everyone has a clear sense of where their work fits into the bigger picture, so they have more motivation to achieve their goals.They can also clearly see opportunities for collaboration, improving efficiency and chance of succeeding on organizational goals and meeting KPI targets
2. **It makes it easier to evaluate whether you're using the right KPIs.** When you can easily see how all the pieces of your strategy—objectives, initiatives, and KPIs—fit together, you have a clearer view of what activities are actually moving the needle in the right direction. In ClearPoint, you can see all objectives that are linked to your KPI. So if you see a KPI is improving but the associated objective remains unchanged, perhaps the KPI doesn't have the influence you thought it had, and it's time to go back to the drawing board.

None of this is to say you *can't* use spreadsheets to view your KPI data, but with ClearPoint, you save time and improve the information available for decision-making.

These aren't the only benefits of ClearPoint. It has a number of features that make strategy execution and reporting easier, including assigning ownership of KPIs, creating dashboards for real-time reporting, and **automating** much of the process to save time. To learn more, **visit our site!**

18 Key Performance Indicator Examples & Definitions

We've broken down our list of KPIs into the four categories of the Balanced Scorecard: Financial, Customer, Process and People. Make sure you select a few from each category so that your strategy is well balanced across the organization.

Financial Metrics

1. **Profit**: This goes without saying, but it is still important to note, as this is one of the most important performance indicators out there. Don’t forget to analyze both gross and net profit margin to better understand how successful your organization is at generating a high return.
2. **Cost**: Measure cost effectiveness and find the best ways to reduce and manage your costs.
3. **LOB Revenue Vs. Target**: This is a comparison between your actual revenue and your projected revenue. Charting and analyzing the discrepancies between these two numbers will help you identify how your department is performing.
4. **Cost Of Goods Sold**: By tallying all production costs for the product your company is selling, you can get a better idea of both what your product markup should look like and your actual profit margin. This information is key in determining how to outsell your competition.
5. **Day Sales Outstanding (DSO)**: Take your accounts receivable and divide them by the number of total credit sales. Take that number and multiply it by the number of days in the time frame you are examining. Congratulations—you’ve just come up with your DSO number! The lower the number, the better your organization is doing at collecting accounts receivable. Run this formula every month, quarter, or year to see how you are improving.
6. **Sales By Region**: Through analyzing which regions are meeting sales objectives, you can provide better feedback for underperforming regions.
7. **LOB Expenses Vs. Budget**: Compare your actual overhead with your forecasted budget. Understanding where you deviated from your plan can help you create a more effective departmental budget in the future.
8. **Cash Flow From Financing Activities**: This metric demonstrates an organization’s financial strength. Formula: (Cash Received from Issuing Stock or Debt) – (Cash Paid as Dividends and Reacquisition of Debt/Stock) = (Cash Flow from Financing Activities).
9. **Average Annual Expenses To Serve One Customer**: This is the average amount needed to serve one customer. Formula: (Total Expenses) / (Total Customers) = (Average Annual Expenses to Serve One Customer).
10. **EBITDA (Earnings Before Interest, Taxes, Depreciation, & Amortization)**: Measures revenue after expenses are considered and interest, taxes, depreciation, and amortization are excluded. Formula: (Revenue) – (Expenses Excluding Interest, Tax, Depreciation & Amortization) = (EBITDA).
11. **Innovation Spending**: This metric shows the amount of money that an organization spends on innovation. Some organizations have this budgeted as research and development, and others have different accounting terms. Ultimately, if you use this measure, you are valuing innovation as a key strategic thrust.
12. **(Customer Lifetime Value) / (Customer Acquisition Cost)**: The ratio of customer lifetime value to customer acquisition cost should ideally be greater than one, as a customer

is not profitable if the cost to acquire is greater than the profit they will bring to a company. Formula: (Net Expected Lifetime Profit from Customer) / (Cost to Acquire Customer).

Customer Metrics

13. **Customer Lifetime Value (CLV)**: Minimizing cost isn't the only (or the best) way to optimize your customer acquisition. CLV helps you look at the value your organization is getting from a long-term customer relationship. Use this performance indicator to narrow down which channel helps you gain the best customers for the best price.
14. **Customer Acquisition Cost (CAC)**: Divide your total acquisition costs by the number of new customers in the time frame you're examining. Voila! You have found your CAC. This is considered one of the most important metrics in e-commerce because it can help you evaluate the cost effectiveness of your marketing campaigns.
15. **Customer Satisfaction & Retention**: On the surface, this is simple: Make the customer happy and they will continue to be your customer. Many firms argue, however, that this is more for shareholder value than it is for the customers themselves. You can use multiple performance indicators to measure CSR, including customer satisfaction scores and percentage of customers repeating a purchase.
16. **Net Promoter Score (NPS)**: Finding out your NPS is one of the best ways to indicate long-term company growth. To determine your NPS score, send out quarterly surveys to your customers to see how likely it is that they'll recommend your organization to someone they know. Establish a baseline with your first survey and put measures in place that will help those numbers grow quarter to quarter.
17. **Number Of Customers**: Similar to profit, this performance indicator is fairly straightforward. By determining the number of customers you've gained and lost, you can further understand whether or not you are meeting your customers' needs.
18. **Customer Churn Rate**: This metric indicates the percentage of customers that either fail to make a repeat purchase or discontinue their service during a given period. Formula: (Number of Customers Lost in a Given Period) / (Number of Customers at the Start of the Period) = (Customer Churn Rate). Make sure you look at the number of customers that should have renewed during that period.
19. **Contact Volume By Channel**: Keeping track of the number of support requests by phone and email allows you to see which method customers prefer, as well as the number of support requests month-to-month.
20. **Percentage Of Customers Who Are "Very" Or "Extremely" Satisfied**: Determining this metric opens up an opportunity for further surveying what makes happy customers so satisfied. This is also a good measure to look at over time, so keep your questions consistent on your surveys. Formula: (Customers Who Consider Themselves "Very" or "Extremely" Satisfied) / (Total Survey Respondents) = (Percentage of Customers Who Are "Very" or "Extremely" Satisfied).
21. **Number Of New Vs. Repeat Site Visits**: Allows companies to differentiate their website traffic and generate insights on prospective customers. Formula: (Website Visits by New Visitors) / (Total Website Visits) = percent of new visitors.

Process Metrics

22. **Customer Support Tickets**: Analysis of the number of new tickets, the number of resolved tickets, and resolution time will help you create the best customer service department in your industry.
23. **Percentage Of Product Defects**: Take the number of defective units and divide it by the total number of units produced in the time frame you're examining. This will give you the percentage of defective products. Clearly, the lower you can get this number, the better.
24. **LOB Efficiency Measure**: Efficiency can be measured differently in every industry. Let's use the manufacturing industry as an example. You can measure your organization's efficiency by analyzing how many units you have produced every hour, and what percentage of time your plant was up and running.

People Metrics

25. **Employee Turnover Rate (ETR)**: To determine your ETR, take the number of employees who have departed the company and divide it by the average number of employees. If you have a high ETR, spend some time examining your workplace culture, employment packages, and work environment.
26. **Percentage Of Response To Open Positions**: When you have a high percentage of qualified applicants apply for your open job positions, you know you are doing a good job maximizing exposure to the right job seekers. This will lead to an increase in interviewees, as well.
27. **Employee Satisfaction**: Happy employees are going to work harder—it's as simple as that. Measuring your employee satisfaction through surveys and other metrics is vital to your departmental and organizational health.
28. **Retirement Rate**: This metric is particularly important for any organization developing a strategic workforce plan. It can be calculated by looking at the number of employees who retired as a percentage of the total headcount. If you do not have an aging workforce, turnover is a good measure as well.
29. **Knowledge Achieved With Training**: Helps the company see the effectiveness of employee training. It can be determined by creating an exam and monitoring exam pass rate percent, average score percent. If you are a larger organization, you may conduct a pre-test before training and then a post-test after training to see specifically what was learned.
30. **Internal Promotions Vs. External Hires**: This ratio measures how many people working at a company are considered for internal promotions versus the number of external hires. It can be particularly effective when looking at organizational succession planning.
31. **Salary Competitiveness Ratio (SCR)**: Used to evaluate the competitiveness of compensation options. This ratio is determined by dividing the average company salary by the average salary offered by competitors or by the rest of your industry.

Balanced Scorecard

What is the Balanced Scorecard?

The Balanced Scorecard, referred to as the BSC, is a framework to implement and manage strategy. It links a vision to strategic objectives, measures, targets, and initiatives. It balances financial measures with performance measures and objectives related to all other parts of the organisation. It is a business performance management tool.

It was originally published by Dr Robert Kaplan and Dr David Norton as a paper in 1992. And then formally as a book in 1996. Both the paper and the book led to its widespread success. It is interesting to note that although Kaplan and Norton published the first paper, they were anomalously referenced in a work by Art Schneiderman who is believed to be the balanced scorecard creator

The term balanced scorecard (BSC) refers to a strategic management performance metric used to identify and improve various internal business functions and their resulting external outcomes. Used to measure and provide feedback to organizations, balanced scorecards are common among companies in the United States, the United Kingdom, Japan, and Europe. Data collection is crucial to providing quantitative results as managers and executives gather and interpret the information. Company personnel can use this information to make better decisions for the future of their organizations.

KEY TAKEAWAYS

- A balanced scorecard is a performance metric used to identify, improve, and control a business's various functions and resulting outcomes.
- The concept of BSCs was first introduced in 1992 by David Norton and Robert Kaplan, who took previous metric performance measures and adapted them to include nonfinancial information.
- BSCs were originally developed for for-profit companies but were later adapted for use by nonprofits and government agencies.
- The balanced scorecard involves measuring four main aspects of a business: Learning and growth, business processes, customers, and finance.
- BSCs allow companies to pool information in a single report, to provide information into service and quality in addition to financial performance, and to help improve efficiencies.

Characteristics of the Balanced Scorecard Model (BSC)
Information is collected and analyzed from four aspects of a business:

1. **Learning and growth** are analyzed through the investigation of training and knowledge resources. This first leg handles how well information is captured and how effectively employees use that information to convert it to a competitive advantage within the industry.
2. **Business processes** are evaluated by investigating how well products are manufactured. Operational management is analyzed to track any gaps, delays, bottlenecks, shortages, or waste.
3. **Customer perspectives** are collected to gauge customer satisfaction with the quality, price, and availability of products or services. Customers provide feedback about their satisfaction with current products.
4. **Financial data,** such as sales, expenditures, and income are used to understand financial performance. These financial metrics may include dollar amounts, financial ratios, budget variances, or income targets.[1]

These four legs encompass the vision and strategy of an organization and require active management to analyze the data collected.

Benefits of a Balanced Scorecard (BSC)

There are many benefits to using a balanced scorecard. For instance, the BSC allows businesses to pool together information and data into a single report rather than having to deal with multiple tools. This allows management to save time, money, and resources when they need to execute reviews to improve procedures and operations.[1]

Scorecards provide management with valuable insight into their firm's service and quality in addition to its financial track record. By measuring all of these metrics, executives are able to train employees and other stakeholders and provide them with guidance and support. This allows them to communicate their goals and priorities in order to meet their future goals.[2]

Another key benefit of BSCs is how it helps companies reduce their reliance on inefficiencies in their processes. This is referred to as suboptimization. This often results in reduced productivity or output, which can lead to higher costs, lower revenue, and a breakdown in company brand names and their reputations.

The balanced scorecard approach

To understand The balanced scorecard approach, it's important to understand that it looks at business through four distinct perspectives. These perspectives are:

Financial

The measurement of the organization's success in terms of finances. This includes items like sales numbers, profit margins, and return on investment (ROI). The financial measurements that are the most important will differ based on the specific goals of the organization.

Customer

Looking at the organization from the viewpoint of a customer or stakeholder. This helps businesses understand what is working with their customer base and make necessary adjustments. Some metrics to measure this might be the number of tickets resolved, customer satisfaction surveys, and customer service calls.

Internal Processes

Examining the efficiency and quality of the organization's performance internally. On the balanced scorecard, this perspective helps organization leaders analyze how well internal systems and processes are working, or if something could be improved/changed to increase profitability.

Organizational Capacity

Looking at what's important to performance, from technology used to company culture to human capital and infrastructure. All of these items force company leaders to look at items (that often get overlooked) and assess how they are all serving the company as far as goal achievement goes.

Based on these four perspectives, organizations are meant to come up with key performance indicators (KPIs), objectives, and targets they want to hit. There is also usually a data mining aspect as well, in which the organization selects the exact data they want to have tracked and reported on.

Advantages & disadvantages of the balanced scorecard

Now that we've covered the basics surrounding balanced scorecards, let's go over the advantages and disadvantages of using this performance measurement method for your organization.

Advantages of a balanced scorecard:

Overall, a balanced scorecard helps companies focus on performance measurement in more than one area. It takes into account items that can sometimes get overlooked in a company such as internal processes and current customer satisfaction. Here are some of the biggest advantages of using this method in your business:

1. Brings structure to business strategy

Different departments within an organization may have their own way of measuring performance and what they consider to be important in terms of metrics. With a balanced scorecard, different leaders and departments can still individualize their performance measurement, but it all falls within a set structure that can be understood across the organization. It gives a common place to everyone in the company to measure success.

2. Makes communication easier

Communication across team members and departments becomes easier when everyone is speaking the same language. In other words, having a streamlined performance measurement system means that it's easier to talk about strategy and progress within the organization.

3. Facilitates better alignment

With a balanced scorecard, members of the organization can easily link their objectives and goals at different levels of the company. It takes the guesswork out of trying to understand everyone's responsibilities and it gets teams and departments synced up under one structure. This also leads to having a much clearer picture over projects and initiatives, which hopefully turns into a shorter turnaround time with more optimal results.

4. Connects the individual worker to organizational goals

A balanced scorecard helps employees "keep their eyes on the prize" so-to-speak in terms of goals. Individual workers may find it helps their own performance when they can see the greater purpose behind the goals and objectives they're aiming to hit. It also has the added benefit of helping employees find purpose in the organization, thus keeping them engaged in their work.

Disadvantages of a balanced scorecard

While there are so many advantages to implementing a balanced scorecard system into your workplace, there are also potential roadblocks and disadvantages to balanced scorecards.

1. It must be tailored to the organization

A balanced scorecard is supposed to provide a framework from which to work from, however, it will still need to be customized to every organization using this system. This can take up a lot of time, and while examples are helpful, they can't be copied exactly due to the unique needs of every business.

2. It needs buy-in from leadership to be successful

For the balanced scorecard system to be fully effective, it must be implemented from the bottom all the way to the top of the organization. This means getting buy-in from leaders, which can sometimes take some convincing, not to mention the learning curve involved with getting the whole organization to use the new system.

3. It can get complicated

The framework itself of balanced scorecards takes some time and dedication to understand. There are countless resources and case studies to read from and it's easy to get bogged down with the many different ways of using this method.

4. It requires a lot of data

Most of the time balanced scorecards require managers and team members to report information, which means logging data. Many don't like this because they find it tedious and also, it can get in the way of doing the work required to meet objectives.

Conclusion

While a balanced scorecard is definitely a tried and true method with many potential advantages, it's important to take into consideration the way that your company operates and whether a balanced scorecard system will be worth the investment.