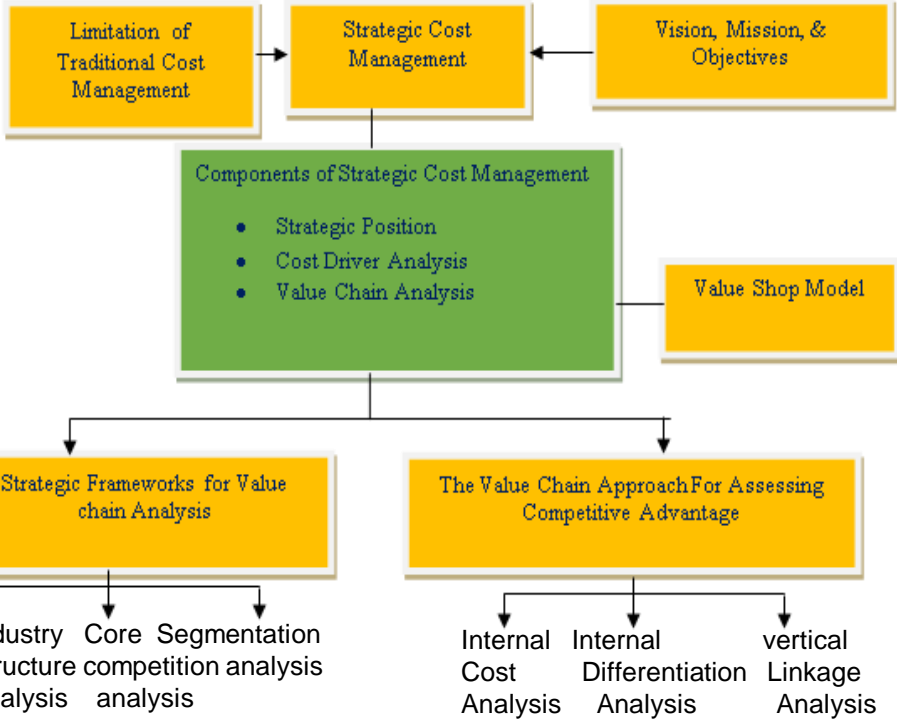


CH- 1 :- Introduction To Strategic Cost Management



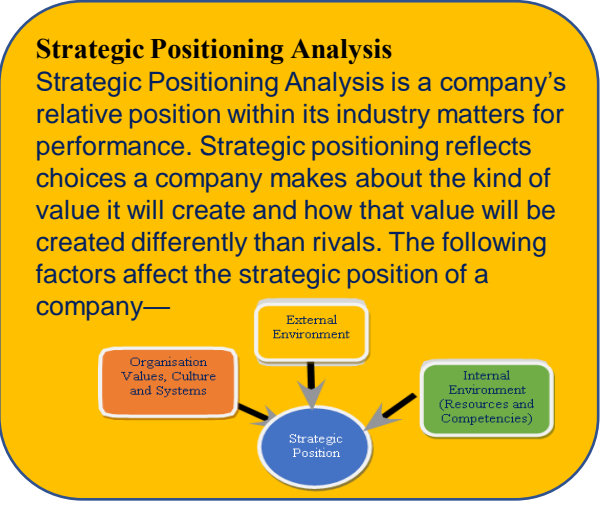
Strategic Cost Management

Strategic Cost management is the application of cost management techniques so that they improve the strategic position of a business as well as control costs.

It also involves integrating cost information with the decision making framework to support the Overall organizational strategy.

It is not limited to controlling costs but using cost information for management decision making.

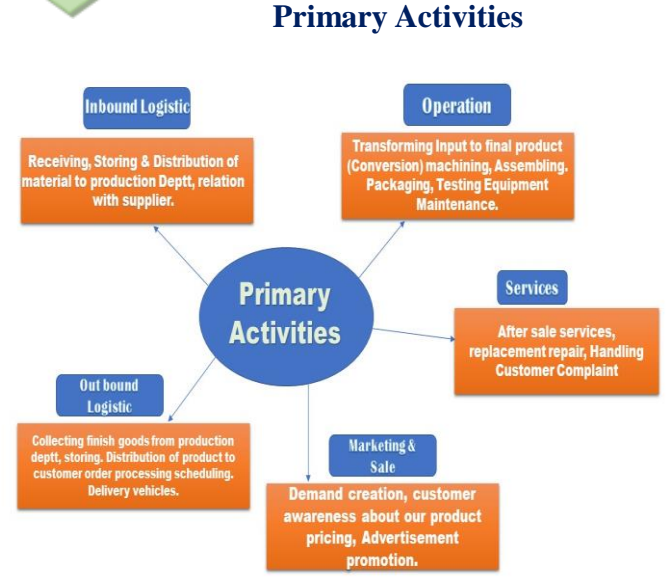
The basic aim of Strategic Cost Management is to help the organization to achieve the sustainable competitive advantage through product differentiation and cost leadership.



Value Chain Analysis

Value-chain analysis is a process by which a firm identifies & analyses various activities that add value to the final product. The idea is to identify those activities which do not add value to the final product/service and eliminate such non-value adding activities. The analysis of value chain helps a firm obtain cost leadership or improve product differentiation. Resources must be deployed in those activities that are capable of producing products valued by customers.

The idea of a value chain was first suggested by Michael Porter (1985) to depict how customer value accumulates along a chain of activities that lead to an end product or service.

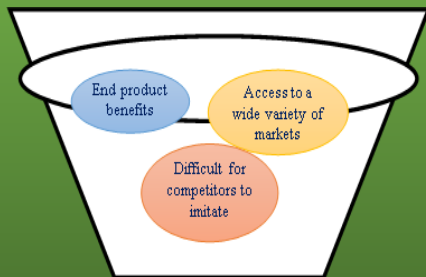


Support activities



Core Competencies Analysis

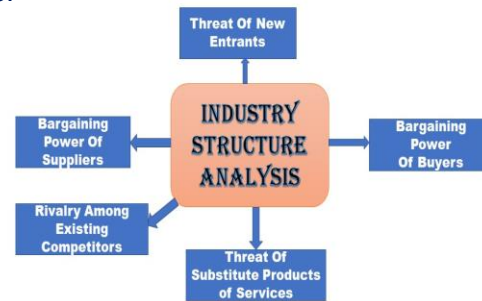
Core Competency is a distinctive or unique skill or technological knowhow that creates distinctive customer value. The core competency of Google is its capability to deliver excellent search results which could not be imitated by its competitors. The core competencies are a function of the collective skill set of people, organisation structure resources & technological knowhow. A core competency is the primary source of an organisation's competitive advantage. The competitive advantage could result from cost leadership or product differentiation. There are three tests useful for identifying a core competence.



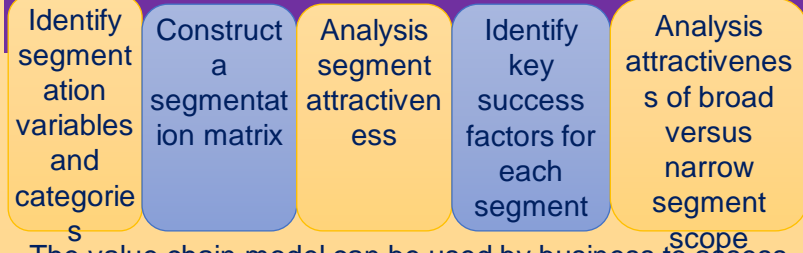
Strategic Framework For Value Chain Analysis

The Value Chain Analysis requires strategic framework for arranging varies information. The following three are generally accepted strategic framework for value Chain analysis.

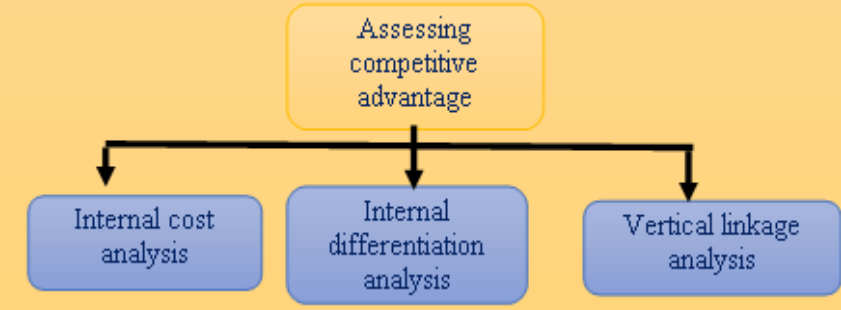
Industry Structure Analysis:- An industry might not yield high profits just because the industry is large or growing. The five forces suggested by Porter's play an important role in determining profit potential of the firms in an industry. Factors which influence profitability are:



The Value Chain Approach for Assessing Competitive Advantage



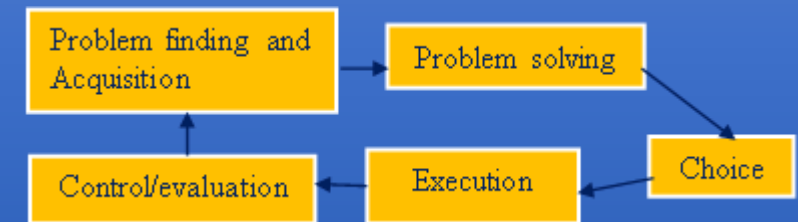
The value chain model can be used by business to assess the competitive advantage. Companies must not only focus on the end product/service but also on the process/activities involved in creation of these products/services. The value chain approach can be used to better understand the competitive advantage in the following areas:



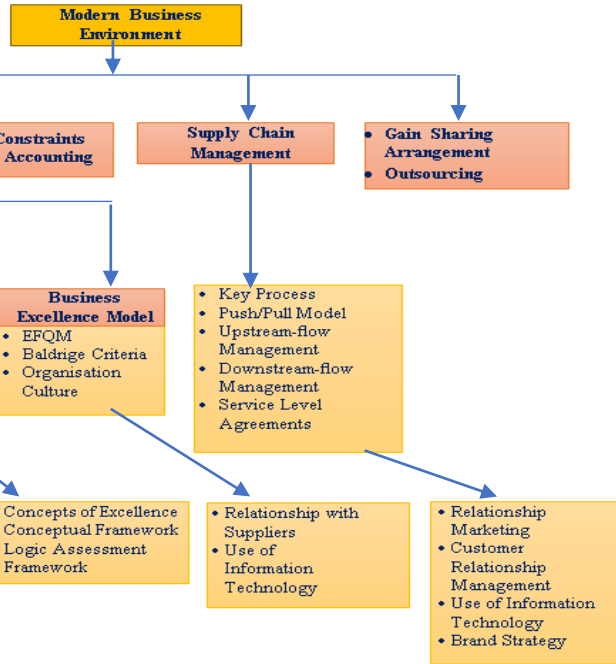
Value Shop Model or Service Value Chain :- This concept aims to serve companies from *service sector*. In value shop principle, no value addition takes place. It only deals with the problem, figure-out the main area requires its service and finally comes with the solution. This approach is designed to *solve customer problems rather than creating value by producing output from an input of raw materials*. **Ne model has the same support activities as Porter's Value Chain but the primary activities are described differently.** In the value shop they are:

- ◆ Problem finding and acquisition.
- ◆ Problem solving.
- ◆ Choosing among solutions.
- ◆ Execution and control/evaluation.

Infrastructure
Human-resource management
Technology development
procurement



CH- 2 :- MODERN BUSINESS ENVIRONMENT



Modern Business Environment

Today's business environment is that of a *buyer's market*. This trend is the result of international transitions and macroeconomic, technological, political, and social changes. The challenge for businesses today is to satisfy their customers through the exceptional performance of their processes.

Optimal COQ

It is generally accepted that an increased expenditure in prevention and appraisal is likely to result in a substantial reduction in failure costs. Because of the trade off, there may be an optimum operating level in which the combined costs are at a minimum. Hence it is further argued that striving for zero defects through a program of continuous improvements is not good for the economic interest of the company.

COST OF QUALITY (COQ)

Mr. Philip B. Crosby in his book Quality is Free referred to the COQ costs in two broad categories namely 'Price of Conformance' and 'Price of Non-conformance'. These two can be bifurcated further in to prevention & appraisal costs and internal & external failure costs. Hence, COQ is often referred as PAF (Prevention, appraisal & failure) model. In other words, 'Price of Conformance' is known as 'Cost of Good quality' and 'Price of Non-conformance' is often termed as 'Cost of Poor Quality'.

External Failure Costs

External failure costs are incurred to medicate defects discovered by customers. These costs occur when products or services that fail to reach design quality standards are not detected until after transfer to the customer. After the product or service is delivered and then the defects is found then it is an external failure. Further external failure costs are costs that are caused by deficiencies found after delivery of products and services to external customers, which lead to customer dissatisfaction. They could include: Repairing, Warranties, Specification Loss Product Liabclaim.

Prevention Cost

The costs incurred for preventing the poor quality of products and services may be termed as

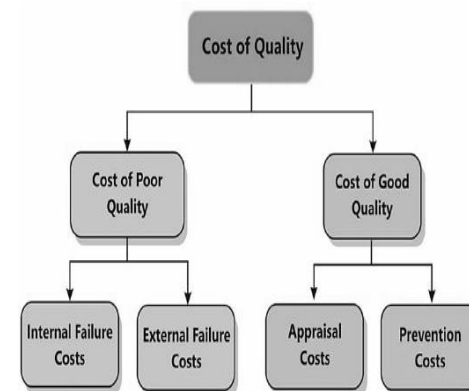
Prevention Cost. These costs are incurred to avoid quality problems. They are planned and incurred before actual operation and are associated with the design, implementation, and maintenance of the quality management system. Prevention costs try to keep failure and appraisal cost to a minimum.

Appraisal Costs

The need of control in product and services to ensure high quality level in all stages, conformance to quality standards and performance requirements is Appraisal Costs. These are costs associated with measuring and monitoring activities related to quality. Appraisal Cost incurred to determine the degree of conformance to quality requirements (measuring, evaluating or auditing). They are associated with the supplier's and customer's evaluation of purchased materials, processes, products and services to ensure that they are as per the specifications.

Internal failure cost

Internal Failure Cost associated with defects found before the customer receives the product or service. Internal failure costs are incurred to remedy defects discovered before the product or service is delivered to the customer. These costs occur when the product is not as per design quality standards and they are detected before they are transferred to the customer. These are costs that are caused by products or services not conforming to requirements or customer/user needs and are found before delivery of products and services to external customers. Deficiencies are caused both by errors in products and inefficiencies in processes.

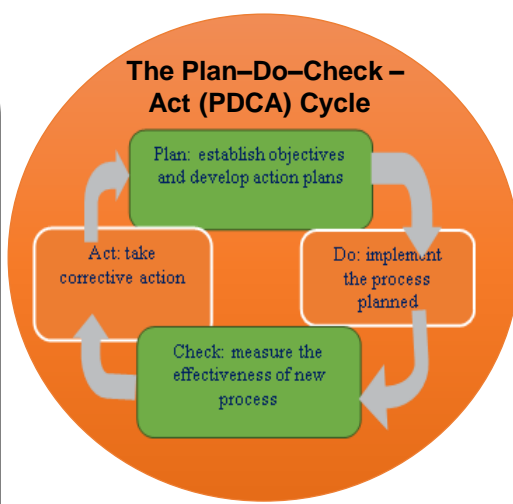
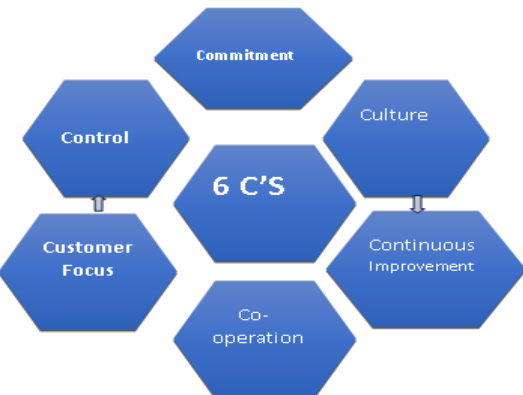


TOTAL QUALITY MANAGEMENT (TQM)

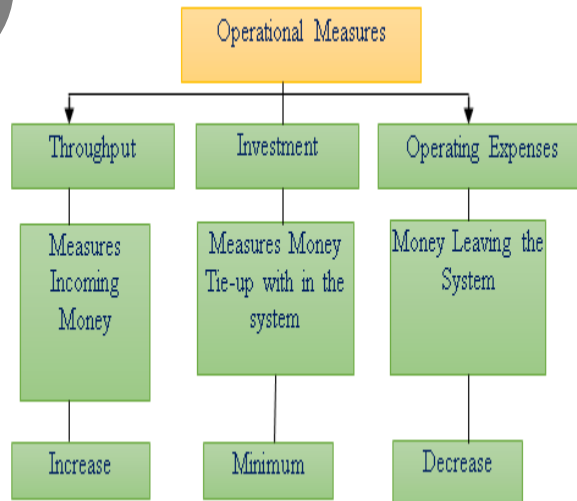
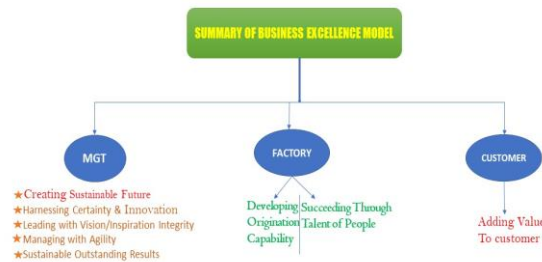
Total Quality Management (TQM) is a management strategy aimed at embedding awareness of quality in all organizational processes. TQM requires that the company maintain this quality standard in all aspects of its business. This requires ensuring that things are done right the first time and that defects and waste are eliminated from operations. TQM is a comprehensive management system which: Focuses on meeting owner's/customer's needs, by providing quality services at a reasonable cost. Focuses on continuous improvement. Recognizes role of everyone in the organization. Views organization as an internal system with a common aim. Focuses on the way tasks are accomplished.

Emphasizes teamwork

Six C's of TQM



The Business Excellence Model



THE THEORY OF CONSTRAINT

The theory of constraints focuses on revenue and cost management when faced with bottlenecks.

Throughput
Throughput as a TOC measure is the rate of generating money in an organization through Sales.
 $\text{Throughput} = (\text{Sales Revenue} - \text{Unit Level Variable Expenses}) / \text{Time}$
Direct Labour Cost is viewed as a fixed unit level expenses and is not usually included.

Investment
This is money associated with turning materials into Throughput and do not have to be immediately expensed.

Includes assets such as facilities, equipment, fixtures and computers

Operating Expense
Money spent in turning Investment into Throughput and therefore, represent all other money that an organisation spends. Includes direct labour and all operating and maintenance expenses

PRINCIPLES OF DEMING (TQM) ABOUT W. EDWARDS DEMING

Store	Production	Inspection (Finished Goods)
1:- Move towards Single Supplier (Multiple supplier mean Variation between feed stock)	2:- Institute training on Job:- If Peoples are not trained, they will not do all work in same way (Variation)	12:- Cease Dependency on Inspection (if Variation is Reduced, No inspection is Required)
	3:- Institute education (self improvement)	13:- Improve constantly & Forever :Reduce variations /Wastage (Cost Reduction)
	4:- Drive out fear	14:- Adopt new Philosophy (Innovation/reject tradition)
	5:- Institute, Leadership not supervision	
	6:- Permit Pride of Workman ship (Confidence)	
	7:- Eliminate slogans/Exhortations	
	8:- Transformation is everyone job (Every employee will get work according to his quality/change)	
	9:- Create Constancy for Improvement (Short term replace with Long Term)	
	10:- Break Down Barriers between department (each can shares its idea openly)	
	11:- Eliminate MBO (Production Encourage Delivery Target: Poor)	

SUPPLY CHAIN MANAGEMENT

Customer Relationship Management, to manage and analyze customer's interaction and data throughout the life cycle with the main motive of improving business relations.

Supplier Relationship Management, provides the structure for how relationships with suppliers are developed and maintained.

Customer Service Management, provides the key points of contact for administering product and service agreements.

Demand Management, provides the structure for optimizing the customer's requirements with supply chain capabilities.

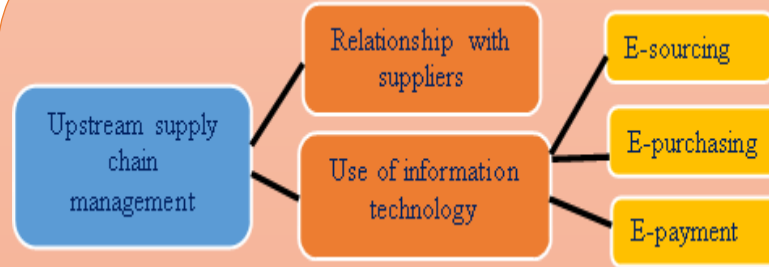
Order Fulfillment, includes all activities necessary to define customer requirements, design the logistics network, and fill customer orders.

Manufacturing Flow Management, includes all activities necessary to move products through the plants and to obtain, implement and manage manufacturing flexibility in the supply chain.

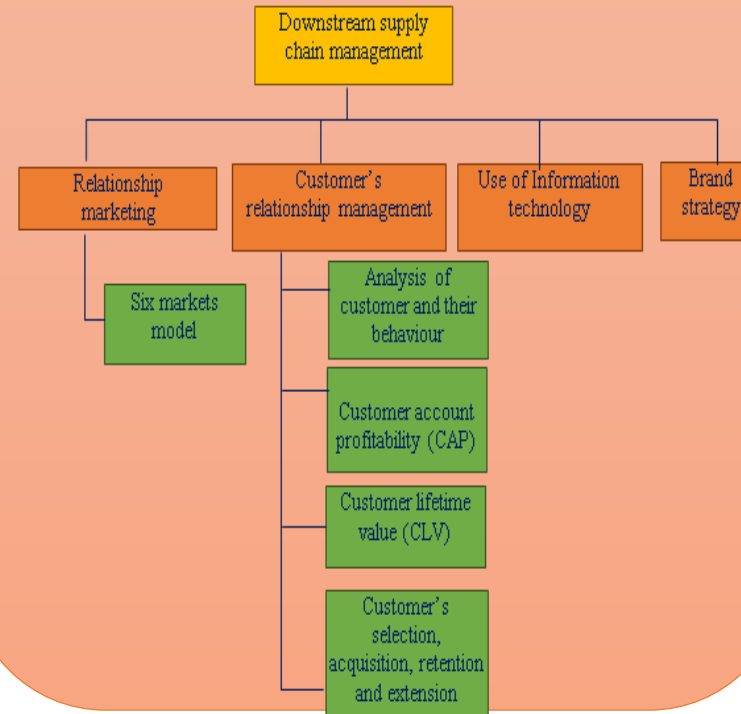
Product Development and Commercialization, provides the structure for developing and bringing to market new products jointly with customers and suppliers.

Returns Management, includes all activities related to returns, reverse logistics, gatekeeping, and avoidance.

Management of Upstream Supplier Chain



Downstream Supply Chain Management



Concept of Supply

Imagine a (Simplified) supply chain for a large, national baker who makes and sells bread through a chain of supermarkets.

Farmer → Mill → Wholesaler → baker → supermarket → consumer

Relationship Marketing



Gain Sharing Arrangements

Gain sharing is an approach to the review and adjustment of an existing contract, or series of contracts, where the adjustment provides benefits to both parties.

1. It's an arrangement between Supplier & Customer.
2. Both Will be benefited.
3. Supplier receive higher huge return when benefit to the customer are very high. Supplier receive low return when benefit from customer are very low. No guarantee payment will be made to supplier.
4. If supplier act adversial behavior, hiding the contract, No reward will be given to supplier.

A gain Sharing arrangement must possess the following components:

- (i) Mutual interdependence and trust between the parties (as opposed to a blame culture).
- (ii) Identification of common goals for success.
- (iii) Agreed decision-making and problem –solving procedures.
- (iv) Commitment to continuous improvement.
- (v) Team working down the entire product and supply chain.
- (vi) Gain-sharing and pain share arrangements established in advance.
- (vii) Open book accounting.
- (viii) Targets that provide continuous measurable improvements on performance.

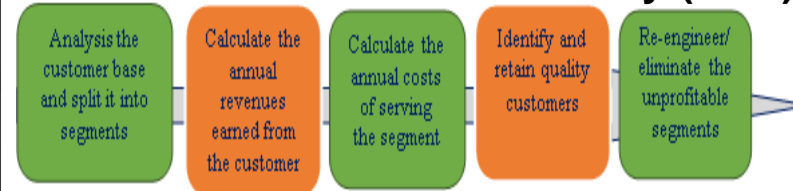
Types of Supply Chain- Push and Pull Model



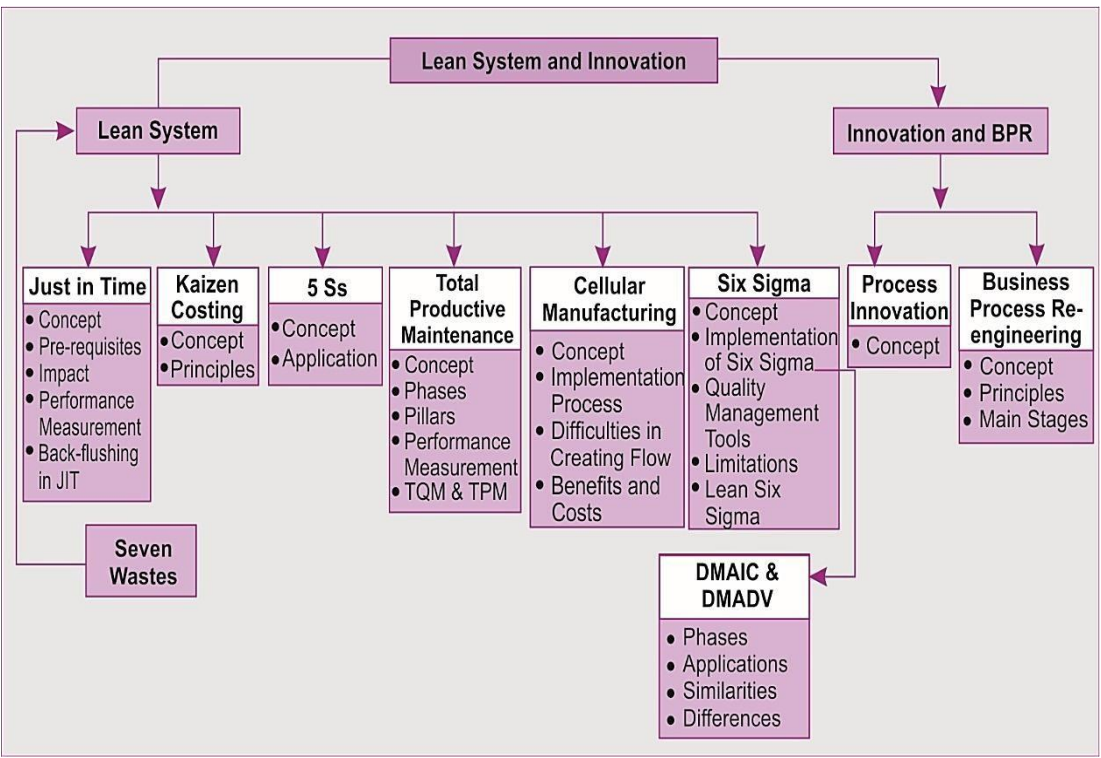
Pull Model



Customers Account Profitability (CAP)



CH-3 Lean System & Innovation



JUST-IN-TIME

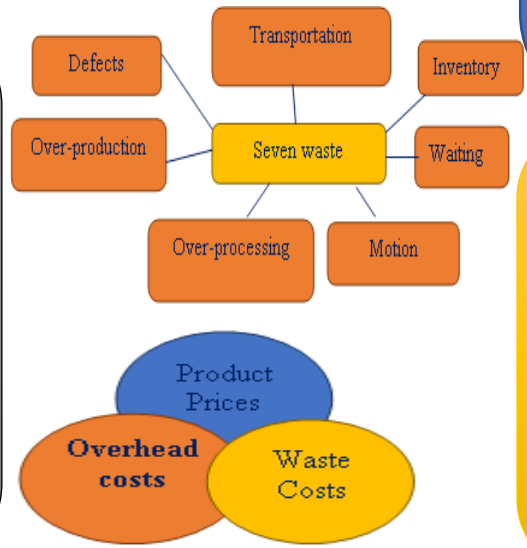
A just in time approach is a collection of ideas that streamline a company's production process activities to such an extent that wastage of all kinds viz., of time, material, and labour is systematically driven out of the process. JIT has a decisive, positive impact on product costs. A complete JIT system begins with production, includes deliveries to a company's production facilities, continues through the manufacturing plant, and even includes the types of transactions processed by the accounting system.

Spare parts/Material from suppliers on the exact date and at the exact time when they are needed	Straight delivery to the production floor for immediate use in manufactured products	Visit of engineering staff at supplier's site to examine supplier's processes
Installation of EDI system that tells supplier exactly how much of which part are to be sent	Dropping off products at the specific machines	Shorten the setup times
Eliminating the need for long production runs/streamlined flow of parts from machine to machine	Training to employees how to operate a multitude of different machines, perform limited maintenance	Several alterations in the supporting accounting systems

KAIZEN COSTING

1. Cost reduction technique.
2. Small Investment/Continuous improvement.
3. Require trainee procedure on regular basis.
4. Not restricted to shop floor employee but to Top management to low level (every employee must participate).
5. No Compromise with the quality crystal clear, duties & responsibility.
6. Different from Target Costing (Design) (Production Stage)
7. Standards are being set on very shortly weekly/Daily.
8. Management should interact with staff/Labour to reduce the Labour cost per unit/Variable Cost.
9. Gradually reduction.
10. Consumption of Per unit low, Labour & Labour related cost can be reduce on continuous basis.

Lean System is an organized method for waste minimization without sacrificing productivity within a manufacturing system. Lean implementation emphasizes the importance of optimizing work flow through strategic operational procedures while minimizing waste and being adaptable. Waste is any step or action in a process that is not required to complete a process successfully (called "Non-Value Adding"). When Waste is removed, only the steps that are required (called "Value-Adding") to deliver a satisfactory product or service to the customer remain in the process. There are generally 7 type of wastes:



Back-flushing

Back Flush required no data entry of any kind until a finished product is completed. At that time the total amount finished is entered into the computer system, which multiplies it by all the components listed in the bill of material for each item produced. This yields a lengthy list of components that should have been used in the production process and which are subtracted from the beginning inventory balance to arrive at the amount of inventory that should now be left on hand. Given the large transactions volumes associated with JIT, this is an ideal solution to the problem.

Kaizen Costing Principles

The system seeks gradual improvements in the existing situation, at an acceptable cost. It encourages collective decision making and application of knowledge. There are no limits to the level of improvements that can be implemented. Kaizen involves setting standards and then continually improving these standards to achieve long-term sustainable improvements. The focus is on eliminating waste, improving systems, and improving productivity. Involves all employees and all areas of the business.

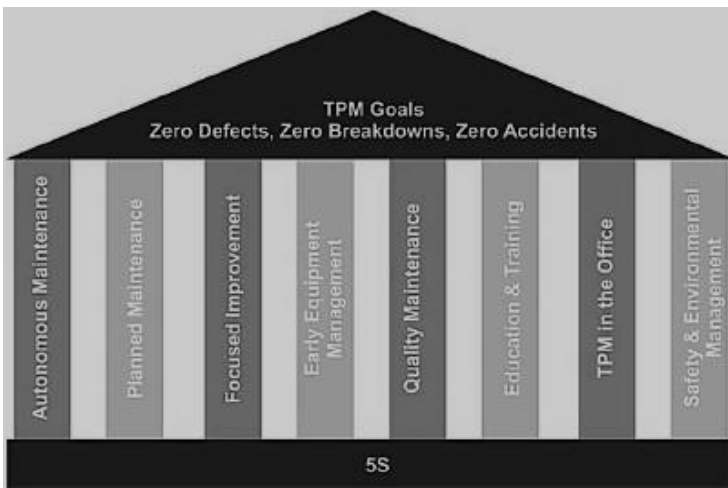
Concept of 5S'



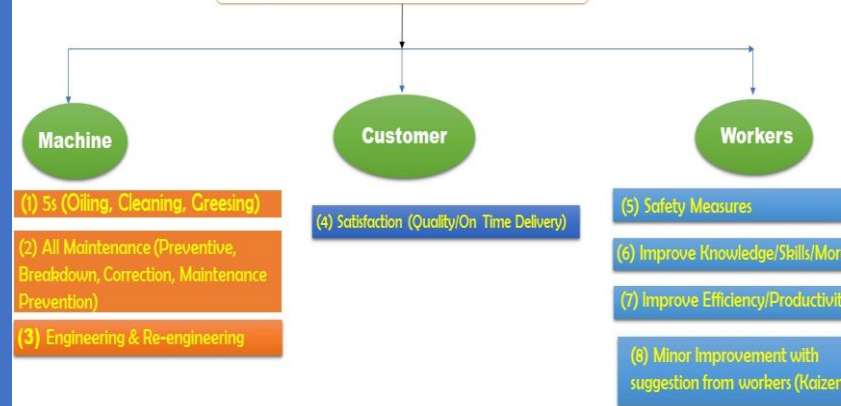
TOTAL PRODUCTIVE MAINTENANCE (TPM)

Total Productive Maintenance (TPM) is a system of maintaining and improving the integrity of production and quality systems. This is done through the machines, equipment, processes, and employees that add to the value in Business Organisation. This concept was first introduced by M/s Nippon Denso Co. Ltd. of Japan, a supplier of M/s Toyota Motor Company.

TPM helps in keeping all equipment in top working condition so as to avoid breakdowns and delays in manufacturing processes



Eight Pillar Of TPM



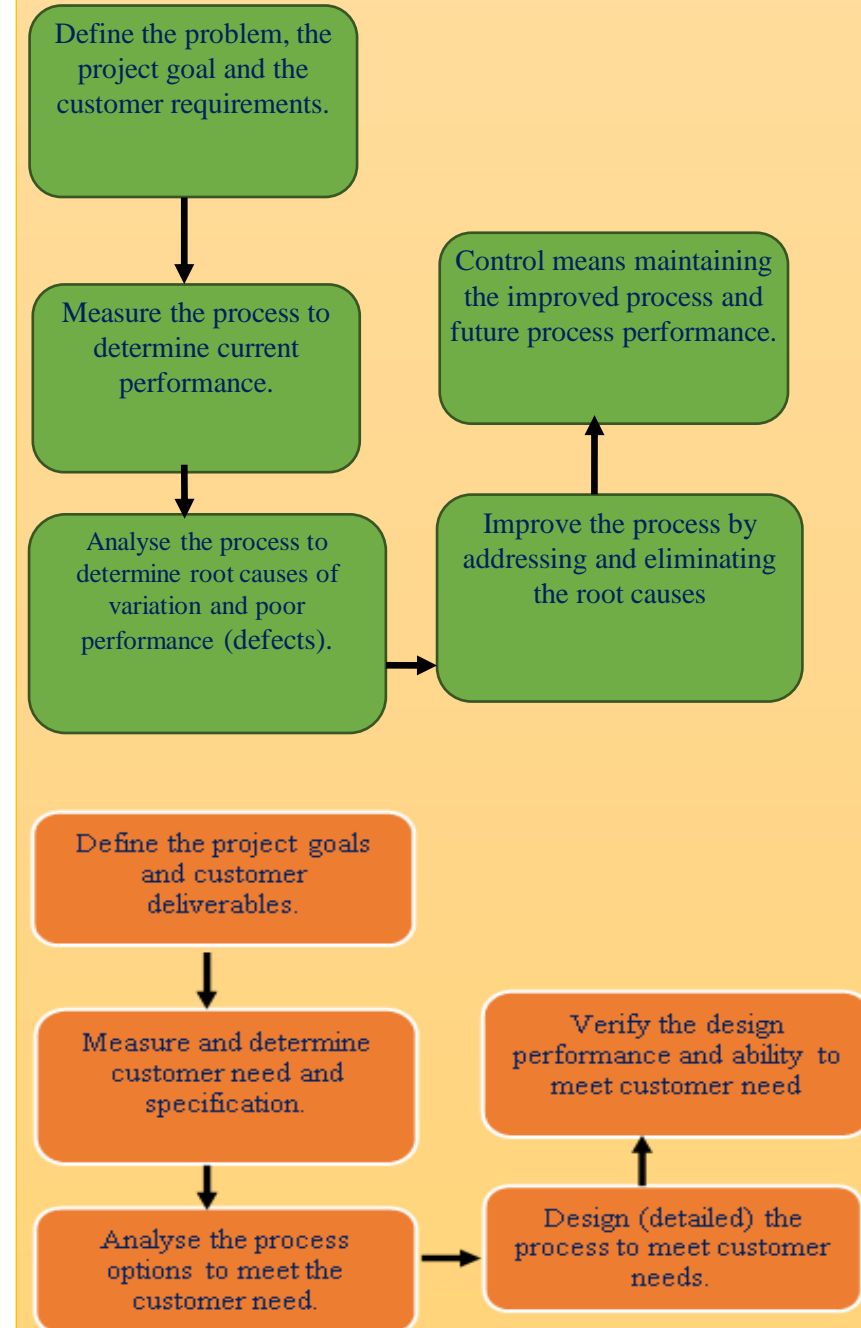
SIX SIGMA

'Sigma' is a statistical term that measures how far a process deviates from perfection. The higher the sigma number, the closer the process is to perfection. The values of Defect Percentage Six Sigma are 3.4 defects per million opportunities or getting things right 99.99966% of the time. It is possible to develop ways of reducing defects by measuring the level of defects in a process and discovering the causes.

Limitations of Six Sigma

Six Sigma focuses on quality only.
Six sigma does not work well with intangible results.
Substantial infrastructure investment is required.
Six sigma is complicated for some tasks.
Not all products need to meet Six Sigma standards.
Six sigma focuses on specific type of process only.
There are lot of real time barriers which needs to be resolved while translating the theoretical concepts into practical applications.

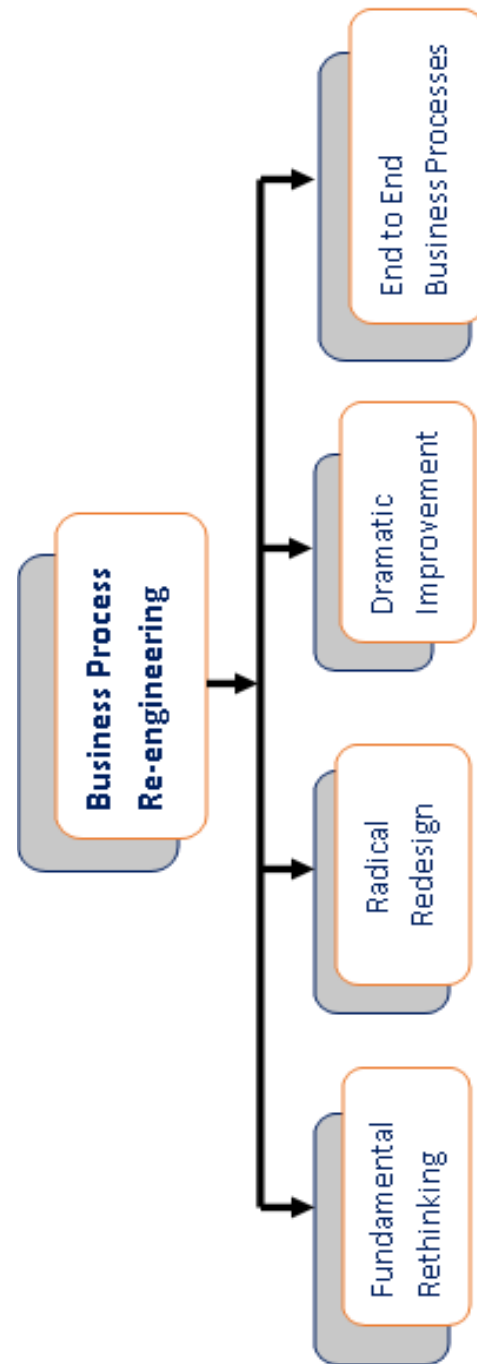
Implementation of Six Sigma



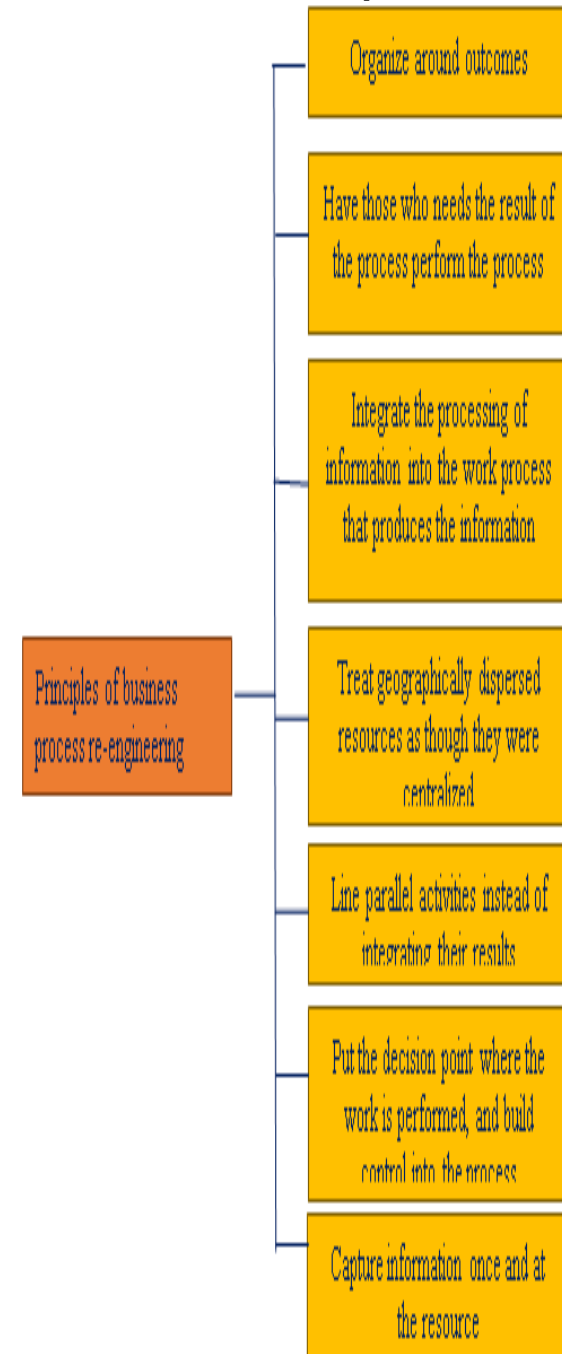
Difference Between DMAIC and DMADV

DMAIC	DMADV
Review the existing processes and fixes problem(s)	Emphases on the design of the product and processes.
More reactive process	Proactive Process.
Increase the capability	Increase the capacity
Rupee benefits quantified rather quickly.	Rupee benefits more difficult to quantify and tend to be much more long term.
Examples of DMAIC problem-solving methods:	Examples of procedures that the DMADV development method is designed to address:\
<ul style="list-style-type: none"> Reduce the cycle time to process a patent. Reduce the number of errors in sales list. Improve search time for critical information. 	<ul style="list-style-type: none"> Add a new service Create a real-time system. Create a multiple-source lead tracking system.

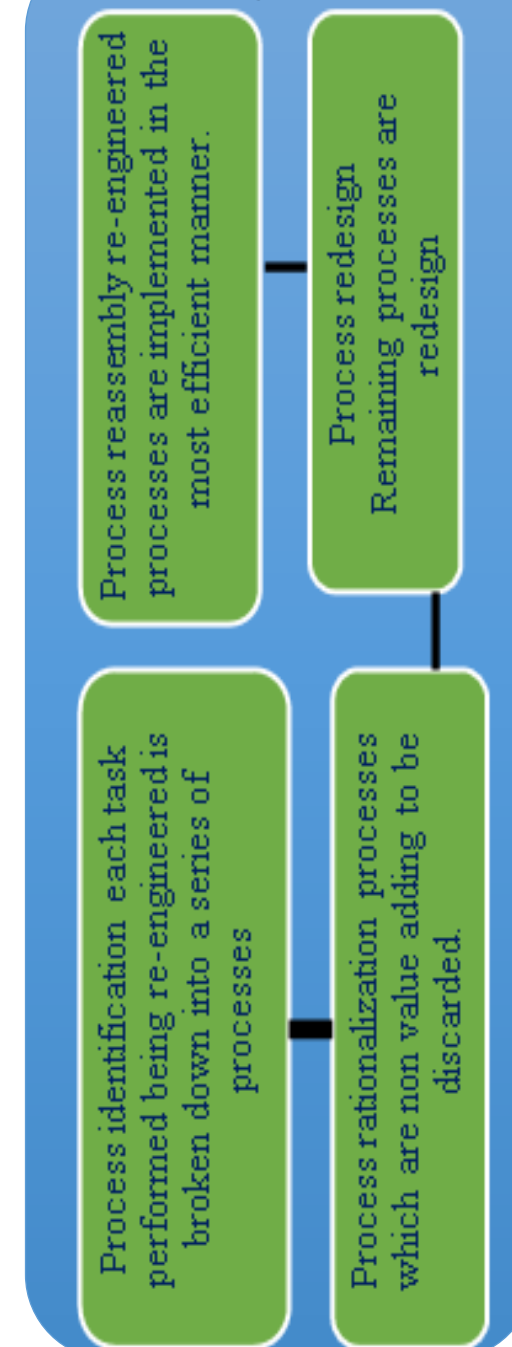
BUSINESS PROCESS REENGINEERING



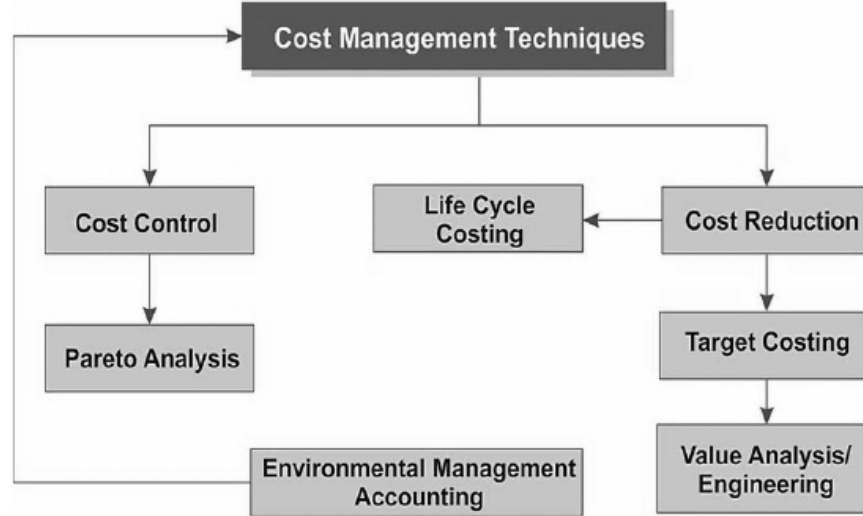
Principles of BPR



Main Stages of BPR



CH-4 Cost Management Techniques



Target Costing

It can be defined as a structures approach to determining the cost at which a proposed product with specified functionality and quality must be produced, to generate a desired level of profitability at its anticipated selling price". In Target Costing, we first determine what price we think the consumer will pay for for our product. We then determine how much of a profit margin we expect and subject that from the final price. The remaining amount left is what is available as budget to be used to create the product.

Value Analysis is a planned, scientific approach to cost reduction which reviews the material composition of a product and production design so that modifications and improvements can be made which do not reduce the value of the product to the customer or to the user.

Value Engineering is the application of value analysis to new products. Value engineering relates closely to target costing as it is cost avoidance or cost reduction before production. Value analysis is cost avoidance or cost reduction of a product already in production; both adopt the same approach i.e. a complete audit of the product.

Advantages of Target Costing

Proactive approach to cost management.

It reinforces top-to-bottom commitment to process and product innovation, and is aimed at identifying issues to be resolved, in order to achieve some competitive advantage.

Target costing starts with customer's study or market study. It helps to create a company's competitive future with market-driven management for designing and manufacturing products that meet the price required for market success.

It uses management control systems to support and reinforce manufacturing strategies; and to identify market opportunities that can be converted into real savings to achieve the best value rather than simply the lowest cost.

Target costing ensures proper planning well ahead of actual production and marketing.

Implementation of Target Costing enhances employee awareness and empowerment.

Foster partnership with suppliers.

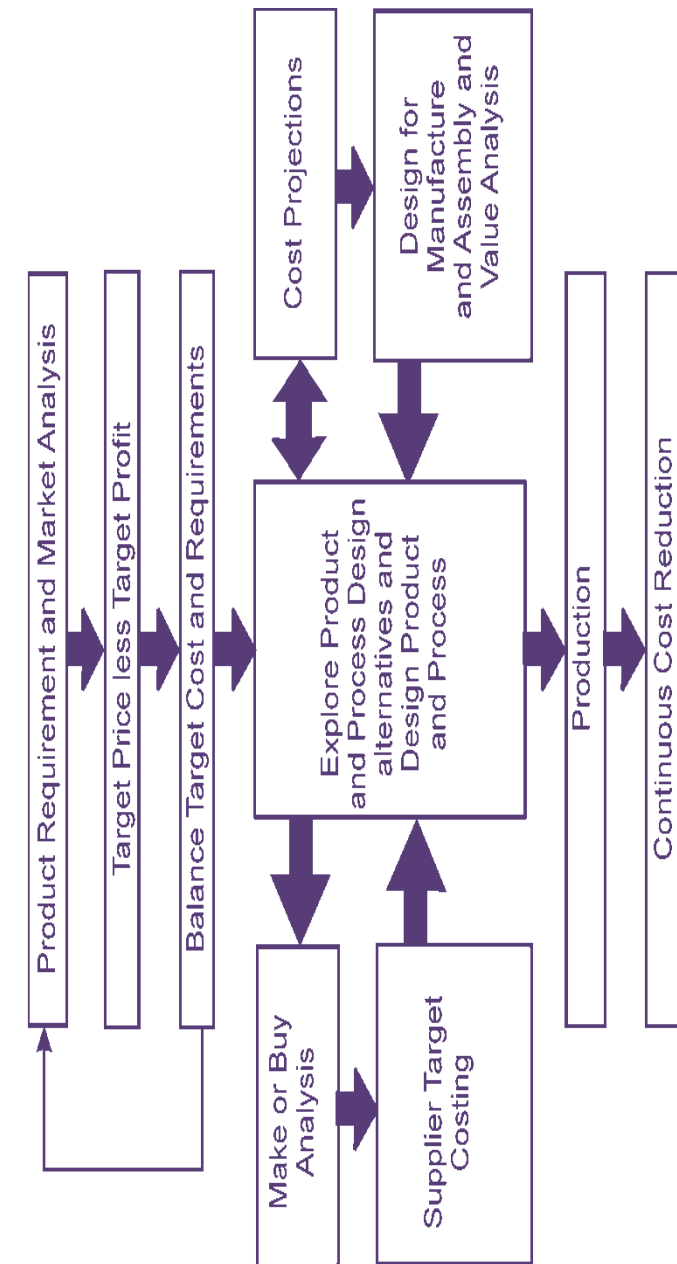
Minimize non-value-added activities.

Encourages selection of lowest cost value added activities.

Reduced time to market.

Target Costing takes a market – driven approach towards cost, in which value is defined not only by what customers demand but also by what they are willing to pay for. This strategy introduces a discipline in which planning focus shifts to those costs that create value and meet the needs of the customer. By involving and educating customers, target costing provides a process that allows teams to make intelligent trade-offs between features, functionality and cost, resulting in designs that are better suited to customer's quality and price expectations.

Target Costing Concepts

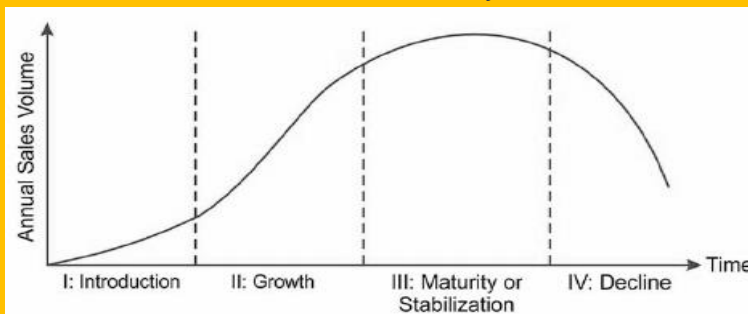


Life Cycle Costing

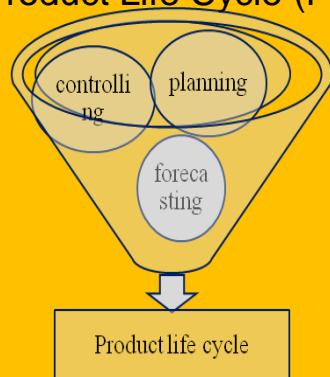
Life Cycle Costing involves identifying the costs and revenue over a product's life i.e. from inception to decline. Life cycle costing aims to maximize the profit generated from a product over its total life cycle. Understanding this can be a useful analysis tool and can help to suggest which strategies the organization needs to adopt in order to compete successfully.

Product Life Cycle

Each product has a life cycle. The life cycle of a product varies from a few months to several years. Product life cycle is thus a pattern of expenditure, sales level, revenue and profit over the period from new idea generation to the deletion of product from product range. The life cycle of a product consists of four phases/stages viz., Introduction; Growth; Maturity; and Decline.



Uses of Product Life Cycle (PLC)



Life cycle Strategies

	Introduction	Growth	Maturity	Decline
Price	Setting Price in alignment with competitive realities of the market	Find ideal balance between Price & demand as per elasticity Value based Pricing	Price may have to be reduced to attract Price sensitive customer	At reduce price to loyal customer / Reduce drastically.
Distribution Channel	Expending/spending boosting channel by availability of Product (Support to Product)	Strong distribution channel (Max. availability of product)	To maintain distribution channel, Channel become intensive/Incentive may be offered	New features may be added, Offer at low cost
Sales/Promotion	Through Promotional activities, attract customer/awareness of product	Through sale promotion establish clear brand identity.	Sales Promotion Incentive are necessary.	Better to nil.
Customer	Effort to buy the product	Maintain control over product quality to assure customer satisfaction/ Long term relation with customer /Partner	Strong marketing efforts are needed, to win over competitor customer/ Differentiation Policy	Use the product as replacement product for launching another product/firm even discontinues the product.

Pareto Analysis

Pareto Analysis is a rule that recommends focus on the most important aspects of the decision making in order to simplify the process of decision making. It is based on the 80: 20 rule that was a phenomenon first observed by Vilfredo Pareto, a nineteenth century Italian economist. He noticed that 80% of the wealth of Milan was owned by 20% of its citizens. This phenomenon, or some kind of approximation of it say, (70: 30 etc.) can be observed in many different business situations. The management can use it in a number of different circumstances to direct management attention to the key control mechanism or planning aspects. It helps to clearly establish top priorities and to identify both profitable and unprofitable targets.

Application of Pareto Analysis

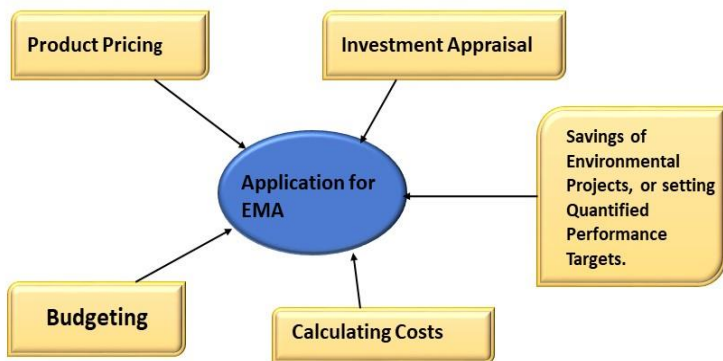


EMA is the process of collection and analysis of the information relating to environmental cost for internal decision making. EMA identifies and estimates the costs of environment-related activities and seeks to control these costs. The focus of EMA is not on financial costs but it also considers the environmental cost or benefit of any decisions made. EMA is an attempt to integrate best management accounting thinking with best environmental management practice.

EMA can be viewed as a part of the environmental accounting framework and is defined as using monetary and physical information for internal management use. Though EMA information can be used in any management decision making process, it is particularly useful for environmental decision making. EMA aims to make a better use of or to modify sources of information and management accounting techniques and to evaluate sustainability and/or environmental efficiency of a company.

ENVIRONMENTAL MANAGEMENT ACCOUNTING (EMA)

EMA is the process of collection and analysis of the information relating to environmental cost for internal decision making. EMA identifies and estimates the costs of environment-related activities and seeks to control these costs. The focus of EMA is not on financial costs but it also considers the environmental cost or benefit of any decisions made. EMA is an attempt to integrate best management accounting thinking with best environmental management practice.



In practice, Environmental Costs can be split into further two categories: **Internal Costs and External Costs.**

Internal Costs have direct impact on the income statement of a company. On the other hand, **External Costs** are imposed on society at large, but not borne by the company that generates the cost in the first instance. Recently governments of many countries are becoming increasingly aware of these external costs and are using taxes and regulations to convert them to internal costs. For example, if the activities of companies lead to forest degradation they might be required to have a tree replacement programme, or they may be granted lower tax allowances on vehicles that cause a high degree of harm to the environment.

Environmental Costs

Environmental Prevention Costs

Those costs associated with preventing adverse environmental impacts.

- Examples include
- Evaluating and picking pollution control equipment
 - Creating environmental policies
 - Environmentally driven R & D
 - Site and feasibility studies
 - Investment in protective equipment

Environmental Appraisal Costs

The cost of activities executed to determine whether products, process and activities are in compliance with environmental standards, policies and laws. Examples include

- Monitoring, testing, inspection and reporting
- Improved systems and checks in order to prevent fines/penalties
- Regulatory compliances
- Performing contamination tests
- Audit of environmental activities

Environmental Internal Failure Costs

Costs incurred from activities that have been produced but not discharged into the environment. Examples include

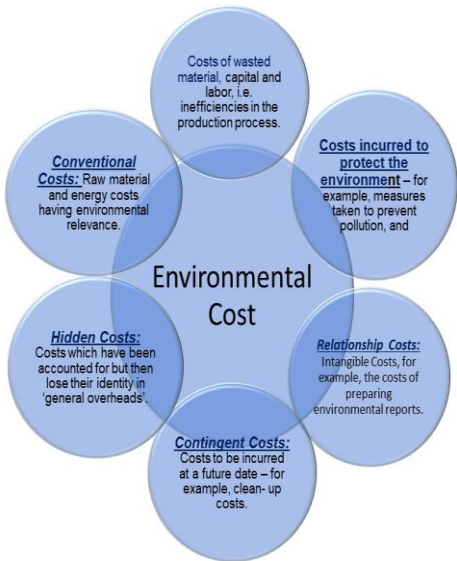
- Recycling scrap
- Disposing toxic material
- Back end costs such as decommissioning costs on project completion

Environmental External Failure Costs

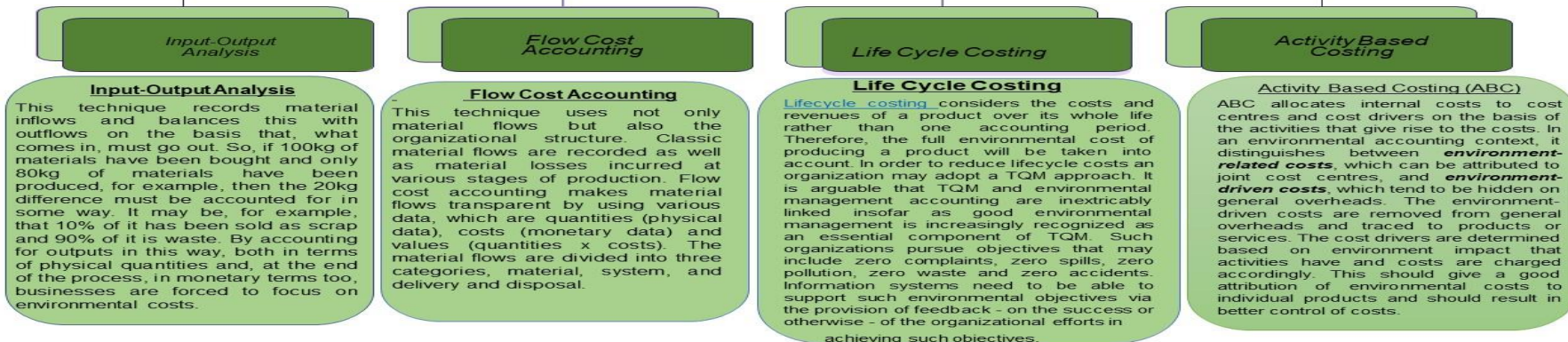
Costs incurred on activities performed after discharging waste into the environment. These costs have adverse impact on the organisation's reputation and natural resources. Examples include

- Cleaning up contaminated soil.
- Restoring land to its natural state

IDENTIFICATION OF ENVIRONMENTAL COSTS



Techniques for Identification and Allocation



ENVIRONMENT COST

ADVANTAGES:-
 New Product/Services
 (Eco friendly vehicles:-
 • Sale Increase
 • Profit Increase
 • Reputation increase

Improvement efficiency
 • Change in material:- Cost Decrease
 • Change in Process:- Waste Decrease
 • Better /Fair Product Cost

DISADVANTAGES:
 Increase cost due to compliance of legal formalities
 • Cost of cleanup, Fine penalty- May be huge
 • Time consuming expensive to implement
 • Some internal environmental cost are ignored/intangible
 Eg.-: Impact on employee health.

Controlling Environmental Cost

Waste
 Apply mass balance Approach: How much material is wasted i.e. Comparing weigh of material purchase is compared with Production yield Measure, Monitor, Manage waste:?
Waste:- Either treated in factory or disposed.
We shall: Separate storage Tank for bulk storage to avoid, chemical drum /container

Water
 Basically two times to be paid .
 1:- Purchase
 2:- Disposed
 To save water, we shall see where it is used
 1:- Boilers
 2:- Cooling units
Use:- Advanced Treatment system.
 Rain water harvesting
 Reverse osmosis System:
 Salt Water Drinking
 Ultra filtration water purification for further use.
 Staff Training . water Conservation through seminar, Presentation conference awareness.

Energy
 Can be reduced at little cost
 1:- Installation of solar light
 2:- Prevention of idle running of equipment
 3:- Installation of 5 star energy equipment
 4:- Converting conventional Light to LED light

Transportation
 Saving in fuel consumption in transport by rout
 Optimization to allocate customer on the basis of nearest depot/ Location to reduce distance
 • Fuel efficient vehicle use. (Eco friendly)
 • GPS to make Sure that vehicle do not deviate from assigned shortest Route (ola/Uber)
 • Satellite based Navigation
 • Global Positioning system

COST
 • Training Cost
 • Power usage
 • Planting of Tree
 • Solid Waste removal
 • R/D activities

COST DRIVER
 • Training Hours
 • Kw. Used
 • No. of Tree Planted
 • Volume of such waste
 • Machine hours worked for such activities

Cost Management for Specific Sector

Power Sector

- Key Risks
- A Complex Network
- Features
- Application of Cost Management Techniques
- Value Chain Analysis

Agriculture Sector

- Features
- Cost Management

Information Technology (IT) Sector

- Engagement Model
- Cost Optimization Framework

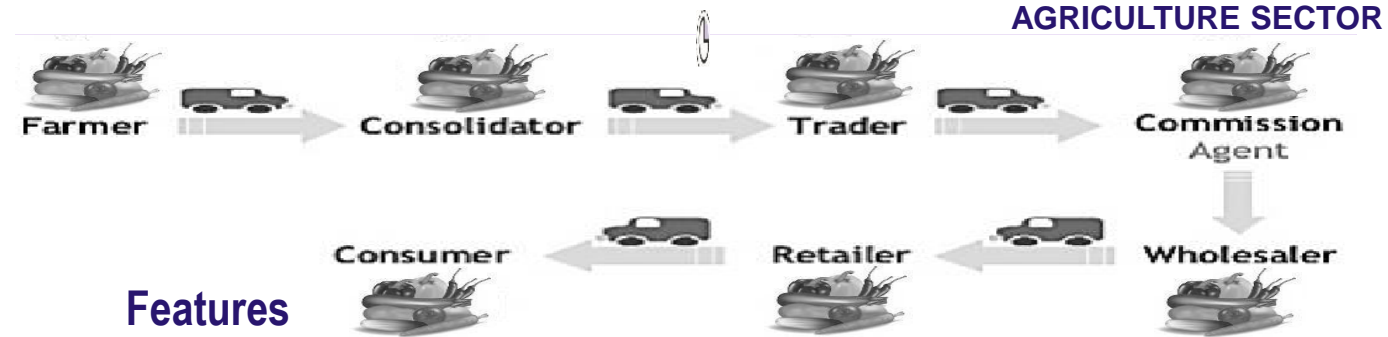
POWER SECTOR



Features of Power Sector

- Limited number of suppliers of electricity.
- Tariff determination is based upon the rationality to determine the cost incurred at various points of operation.
- Stakeholders are existing and future consumers, industries, government, regulators, and investors.
- Continuous growing demand of electricity.
- Flexible Cost allocation.
- Distribution loss and inefficiency gaps between generation and consumption of electricity.
- In-disciplined consumer.
- Continuous network between generators, transmitters, distributors, and consumers.
- Mostly public sector undertakings closely regulated by government.
- Energy subsidies having direct impact on national treasury affecting long term growth potential of the economy.

CH-5 Cost Management for Specific Sector



Features

- Challenges associated with structure of the industry which is fragmented and unorganized
- Lack of understanding of costs
- Understanding the potential of working collaboratively
- Use of target costing techniques for price determination
- Imbalance of power across the supply chain

Fragmented Structure of the Industry

The structure of the agriculture sector is seen to be unorganized and fragmented in nature and thus lack of effective regulation in the given sector is also seen as one of the reasons why farmers seem to be exploited and have been operating at very low margins.

Lack of understanding of costs and prices by the farmers

One of the key reasons seen for the lack of appropriate cost management in the given sector is with regards to the lack of prioritization of the cost management among farmers because of lack of knowledge with regards to the same.

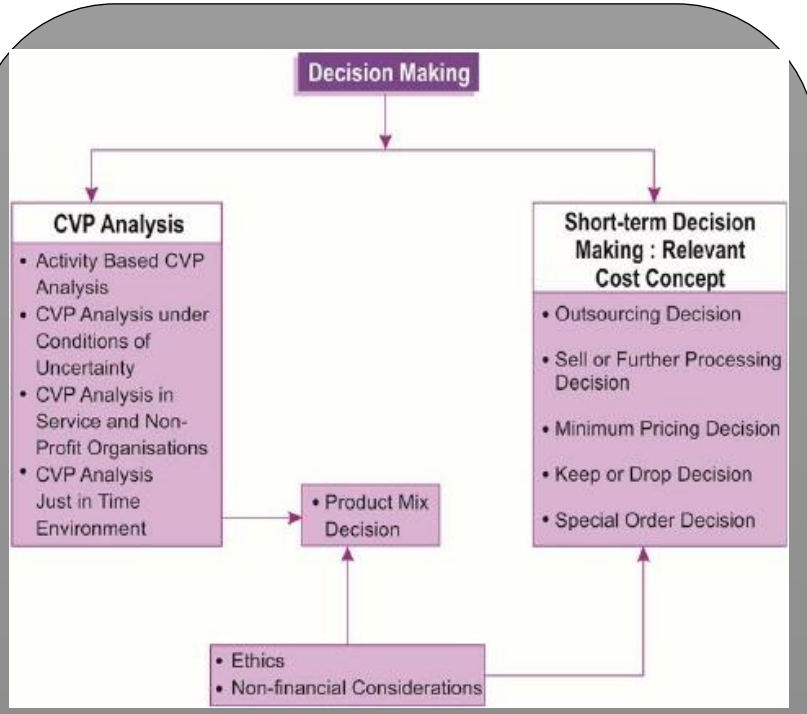
Understanding the potential to work collaboratively

The farmers need to be open to innovation in cost management and contracting techniques. Though there is scope for cost reduction in order to bring about improvement in the profit margins for the farmers, it is seen that generally the profits tend to get transferred to the customers and the only point of negotiation is in the contract pricing with the retailers which the farmers fail to reach.

Target cost Management

The target costing technique involves determining the cost by subtracting the required margin from the anticipated price for the agricultural produce. However, the anticipated price for the agricultural products fluctuates making the process of cost management using the target cost management system ineffective in the case of the agricultural sector.

CH-6 DECISION MAKING



Non-Financial Considerations

With increase in competition, dynamic market changes and changing needs of customers, non-financial information have gained relevance in the decision-making process. Information to which monetary value can be attached is in the nature of financial information. Information of an organization like number of employees, employee morale, customer satisfaction that cannot be expressed in monetary terms is termed non-financial in nature. *Non-financial information is long term focused and ensures profitability and sustainability in long term for an organization thereby evaluating the internal performance of the company.* Non-Financial information which a company should focus that would turn out to be advantageous while making decisions for a company are:

- Quality, Employee Satisfaction, Customer Satisfaction, Corporate Social Responsibility, Environmental Factors, Intellectual Property, Intangible Assets, Competitor's Movements, Brand Name

SOME APPLICATIONS OF CVP ANALYSIS AND COST CONCEPTS

Short run decisions are many and varied but some of the more important ones, **we shall look in this chapter include:** Out Sourcing Decision, Sell or Further Process, Minimum Pricing Decisions, Keep or Drop Decisions, Special Order Decisions, Product Mix Decision.

Outsourcing Decision

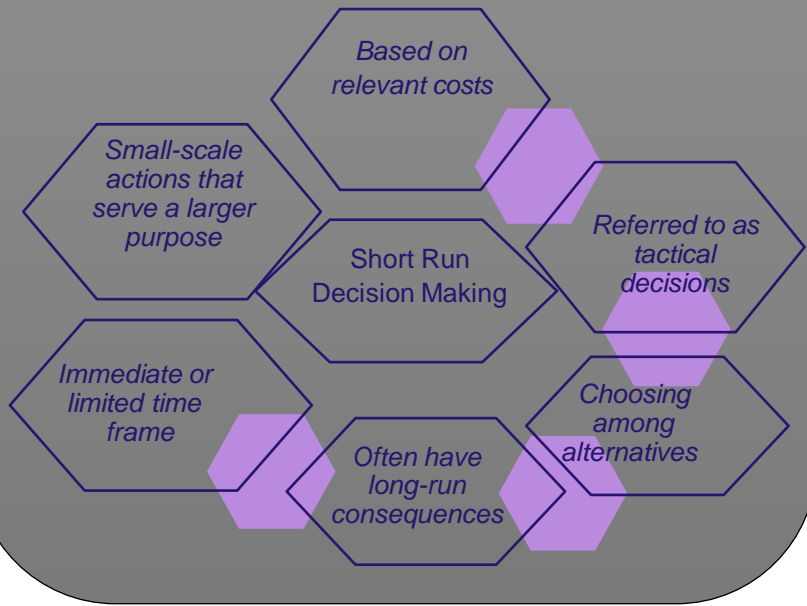
Outsourcing decision is often called a 'make or buy' decision. It involves a decision of whether to continue 'making' a product versus 'buying' it from an external firm. Outsourcing enables a firm to reduce costs or benefit from supplier efficiencies

Outsourcing decision requires incremental analysis. The incremental amounts are based on the difference in the cost of buying a product or service compared to the cost of producing the item or providing the service in house.

Keep or Drop Decisions Another type of operating decision that management must make is whether to keep or drop unprofitable segments, such as product lines, services, divisions, departments, stores, or outlets. The decision is based on whether or not the segment's revenue exceeds the costs directly traceable to the segment, including any direct fixed costs.

Special Order Decisions :- Special order decisions focus on whether a special priced order should be accepted or rejected. These orders often can be attractive, especially when the firm is operating below its maximum productive capacity. Price discrimination laws require that firms sell identical products at the same price to competing customers in the same market. This law does not apply to:- Noncompeting customers from the same market. Potential customers in markets not ordinarily served.

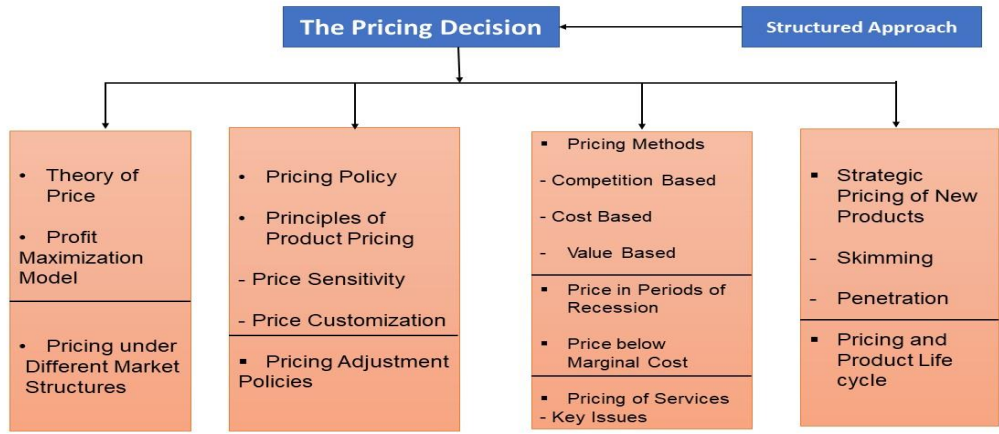
Short Run Decision Making



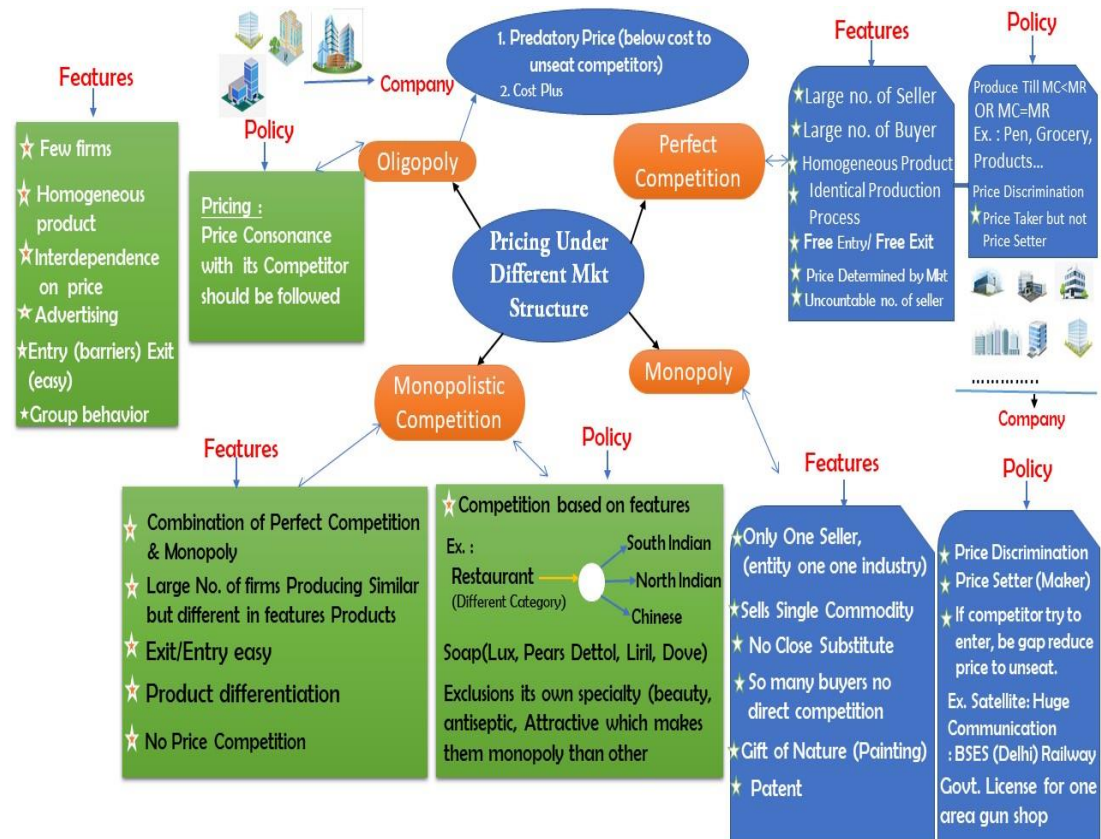
Decision - Accept or Reject?

- If incremental revenue < incremental cost, reject the special order, unless qualitative characteristics fiercely impact the decision.
- If incremental revenue = incremental cost, qualitative effects must be used to make the decision.
- If incremental revenue > incremental cost, accept the order, unless qualitative characteristics fiercely impact the decision.

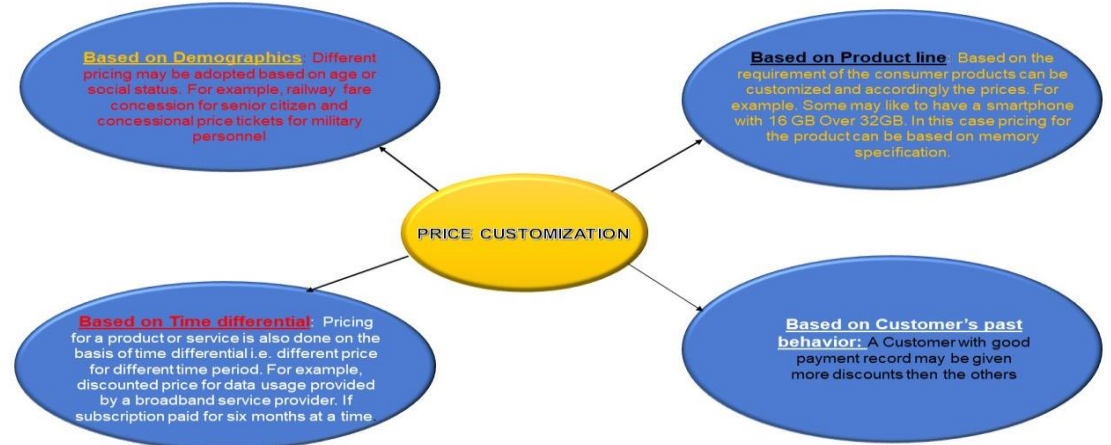
CH-7 Pricing Decision



Pricing under different Market structure



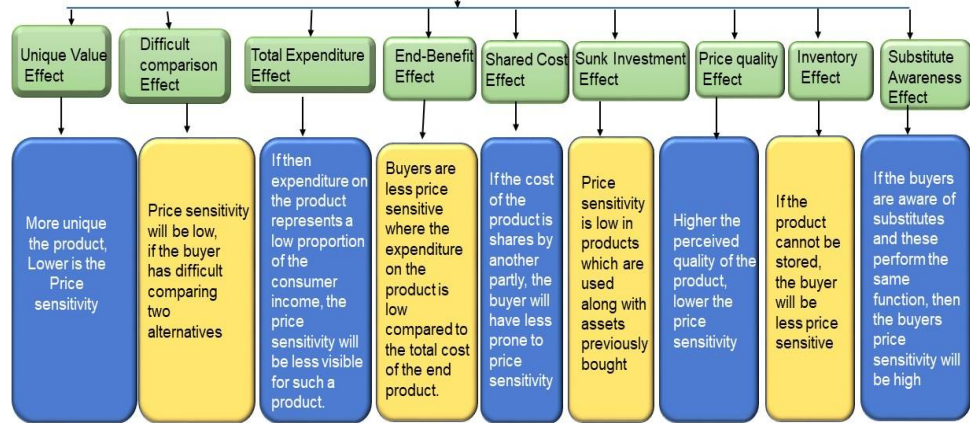
Price Customization



Price Sensitivity Concept



PRICE SENSIVITY



Penetration Pricing

Penetrating pricing, means a pricing suitable for penetrating mass market as quickly as possible through lower price offers. This method is also used for pricing a new product. In order to popularize a new product penetrating pricing policy is used initially. The company may not earn profit by resorting to this policy during the initial stage Later on, the price may be increased as and when the demand picks up. Penetrating pricing policy can also be adopted at any stage of the product life cycle for products whose market is approached with low initial price. The use of this policy by the existing concerns will discourage the new concerns to enter the market. We must distinguish penetration pricing from Predatory Pricing. Predatory Pricing (loss leading) is the practice of selling a product or service at a very low price, intending to drive competitors out of the market or create barriers to entry for potential new competitors.

When there are substantial savings on large scale production. Here increase in demand is sustained by the adoption of low pricing policy.

When there is threat of competition. The prices fixed at a low level act as an entry barrier to the prospective competitors.

When demand of the product is elastic to price. In other words, the demand of the product increases when price is low.

Concept of Skimming Pricing & Penetration Pricing

Skimming Pricing

It is a policy of high prices during the early period of a product's existence. This can be synchronized with high promotional expenditure and in the later years the prices can be gradually reduced. The reasons for following such a policy are:

The demand is likely to be inelastic in the earlier stages till the product is established in the market

The change of high price in the initial periods serves to skim the cream of the market that is relatively insensitive to price. The gradual reduction in price in the later year will tend to increase the sales.

The demand for the product is not known the price covers the initial cost of production.

High initial capital outlays, needed for manufacture, results in high cost of production.

Pricing and Product Life cycle

Introduction Stage	Growth Stage	Maturity Stage	Decline stage
Skimming Policy with high prices, but low profit margin due to high fixed costs	Reduce price to penetrate market further.	Price to match or beat competitor.	Cut price if not repositioning.
Penetration Policy to enter the market and gain a high share quickly or to prevent competitors from entering.		Retain higher prices in some market segments.	Some increases in prices may occur in the late decline stage.

Perceived value

Perceived value pricing is that value which customers are willing to pay for a particular product or service based on their perception about the product. Perceived value pricing is not based on the cost of the product, but it is the value which the customer thinks that he/she is deriving from consuming a product or a service.

Perceived value pricing is an important marketing strategy which helps firms to price a particular product in the markets. Generally, marketers position the product in such a way that it will make the product unique.

Customers usually compare the value that they derive after using the product or service and end up paying more. Marketers need to show the customers the true value they would get after using the product.

Let's understand perceived value pricing with the help of some examples: If you have to reach the airport you have multiple options given by the cab rental company. They will give you a choice between multiple car segments for the same destination.

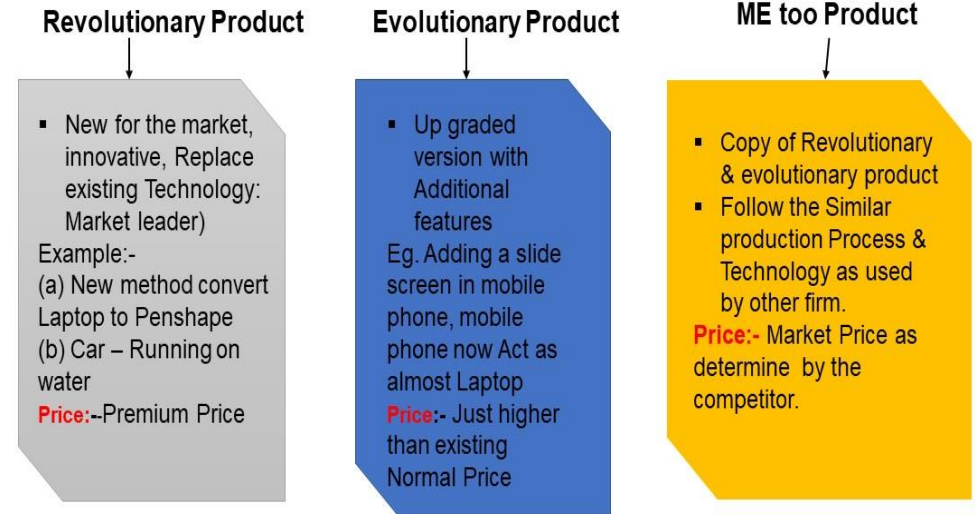
Usually, prices are higher for a sedan, a sports utility vehicle or a multi-purpose vehicle, as compared to a hatchback. Although, the distance remains the same, but customers pay a higher value per kilometer for higher category of cars.

The comparison that customers can draw is that sedan vehicles are more spacious, cleaner, more comfortable, and there is space for more passengers as compared to a hatchback.

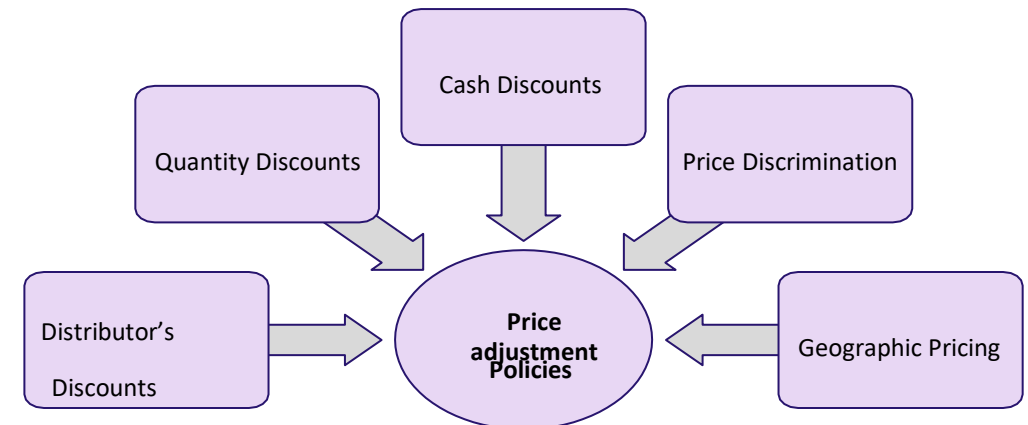
Another example is luxury watches. The production cost is usually low even if it is studded with diamonds. But, some watch companies usually sell their products for over Rs 1 lakh.

Here the customers are not concerned about the cost of the product, but pay for the brand (it might be associated with a celebrity), the experience, and how it will add to the social status of the person.

THREE CATEGORIES OF PRICING

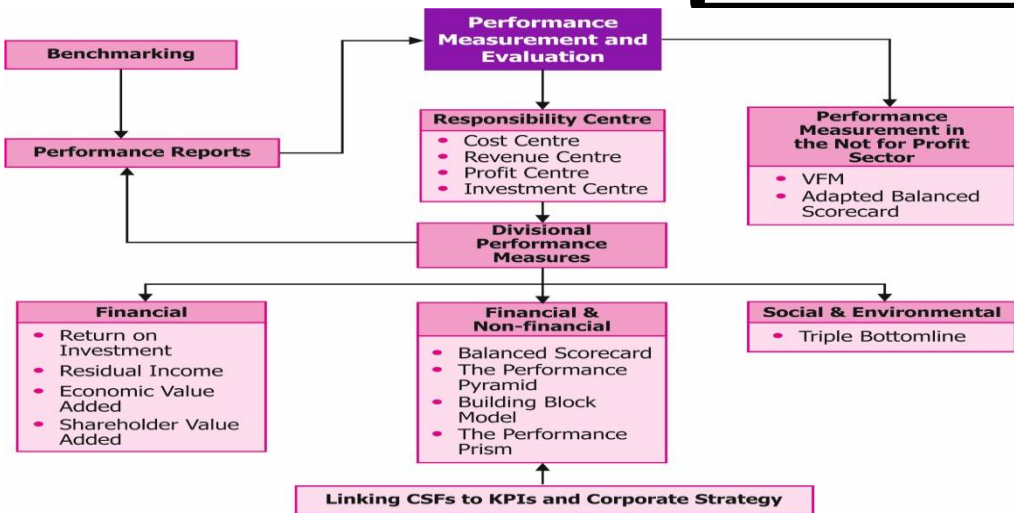


PRICE ADJUSTMENT POLICIES



Perceived-Value Pricing



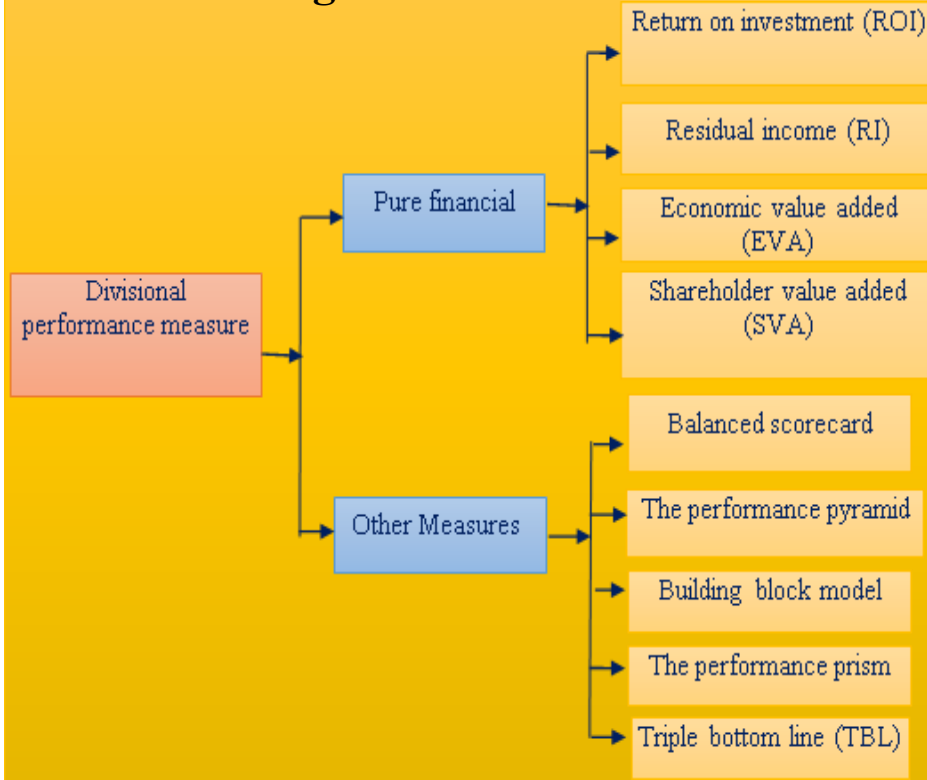


Triple Bottom Line (TBL)

Environmental-measures the impact on resources, such as air, water, ground and waste emissions .
Social- relates to corporate governance, motivation, incentives, health and safety, human capital development, human rights and ethical behaviour.
Economic- refers to measures maintaining or improving the company's Success.

ENVIRONMENT (Planet)	SOCIAL (People)	ECONOMICAL (Project)
➤ Material, Water energy, Fuel, Land consumption	➤ Training/education provided to employee	➤ Whether Company Paying their tax on Regular basis.
➤ Disposal of Waste	➤ Human Right Practices ➤ -(No Child labour appointed)	
➤ Whether Company use paper bag instead of plastic bag. ➤ To Preserve natural resources	➤ Proper health/safety measures adopted	

Divisional Organizational Structure



Balanced Scorecard

The balanced scorecard is a method which displays organisation's performance into four dimensions namely financial, customer, internal and innovation. The four dimensions acknowledge the interest of shareholders, customers and employees taking into account of both long-term and short-term goals.

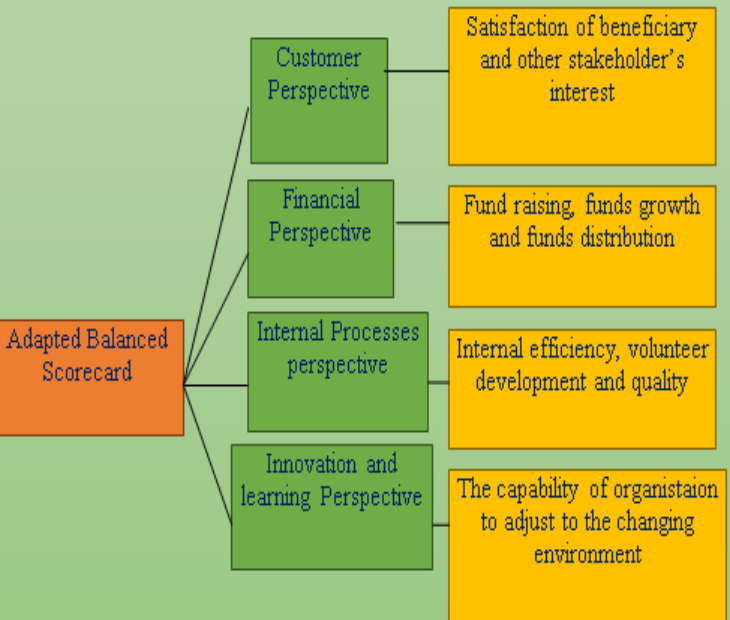
Financial Perspective: Financial performance measures indicate whether the company's strategy implementation and execution are contributing to its revenue and earnings.

Customer Perspective: In this stage, companies identify customers and market segments in which they compete and also the means by which they provide value to these customers and markets.

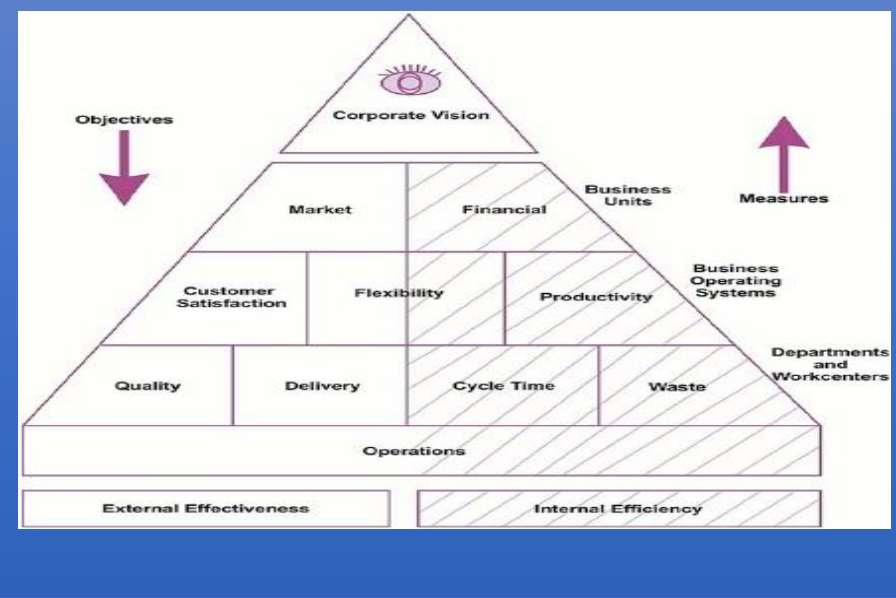
Internal Business Perspective: In this stage companies identify processes and activities which are necessary to achieve the objectives as identified at financial perspectives and customer perspective stage. These objectives may be achieved by reassessing the value chain and making necessary changes to the existing operating activities.

Learning and Growth Perspective: In the learning and growth perspective, Companies determine the activities and infrastructure that the company must build to create long term growth, which are necessary to achieve the objectives set in the previous three perspectives.

Adapted Balanced Scorecard



Performance Pyramid



Performance Prism

The Performance Prism is an approach to performance management which aims to effectively meet the needs and requirements of all stakeholders. This is in contrast with the performance pyramid which tends to concentrate on customers and shareholders and is also in contrast with value based management, which prioritizes the needs of shareholders.

Stakeholders Satisfaction: The organization needs to focus on who are the stakeholders? What are the needs and wants of the stakeholders?

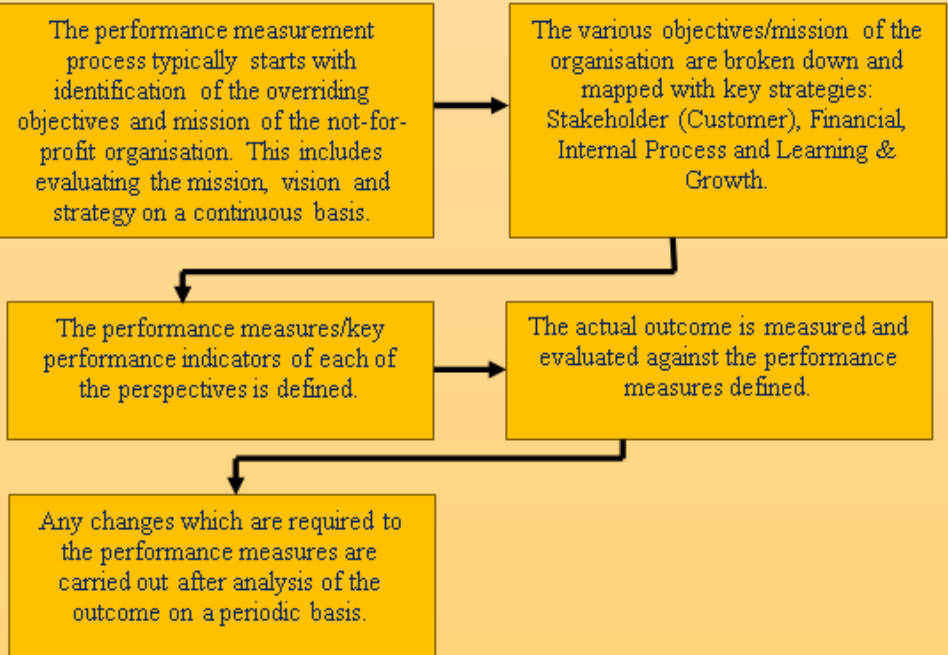
Strategies: What are the strategies required by the organization to fulfill the wants and needs of the stakeholders?

Processes: What are the necessary processes required for satisfying the above strategies?

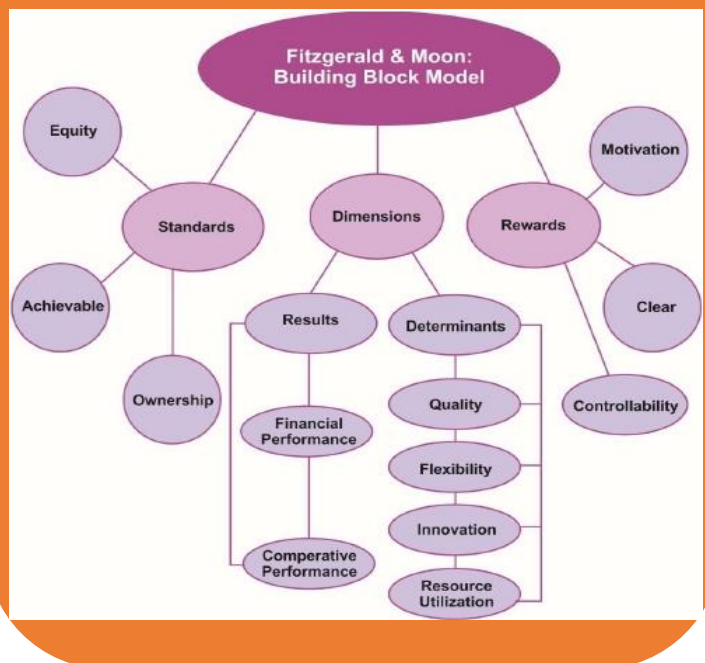
Capabilities: What capabilities does the organization needs for operating and enhancing the process?

Stakeholders Contributions: It further takes into account what contribution does the management needs from its stakeholders?

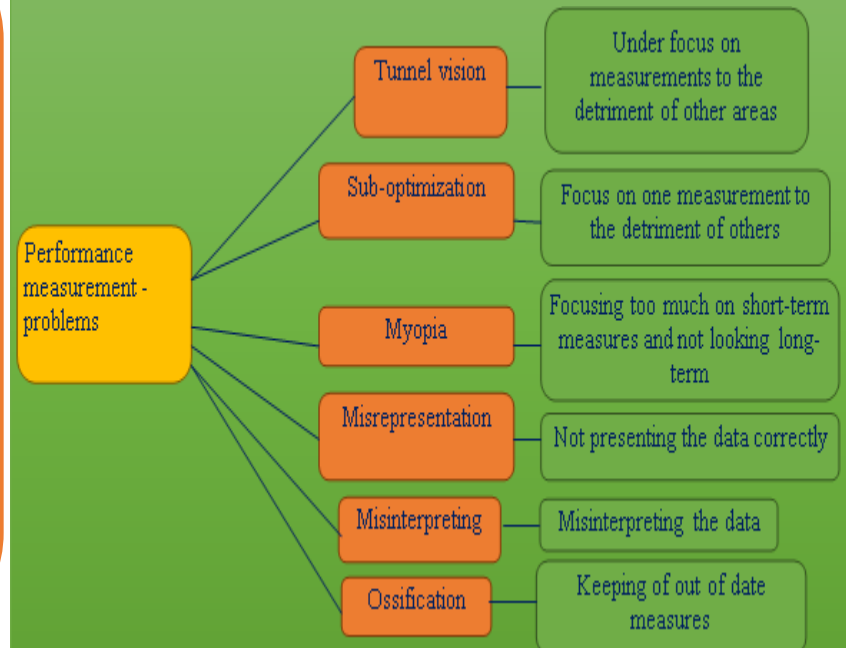
Performance Measurement Process



The Building Block Model



Performance Measures – Problems



TYPES OF BENCHMARKING:-

- (a) Strategic Benchmarking : Studying the strategic that helped t best practice companies to succeeds.(ii) Competitive Benchmarking : Involve companies from the same sector. (iii) Process Benchmarking : Improve specific key processes.(iv) Internal Benchmarking (v) External Benchmarking(vi) International Benchmarking

Benchmarking is of following types:

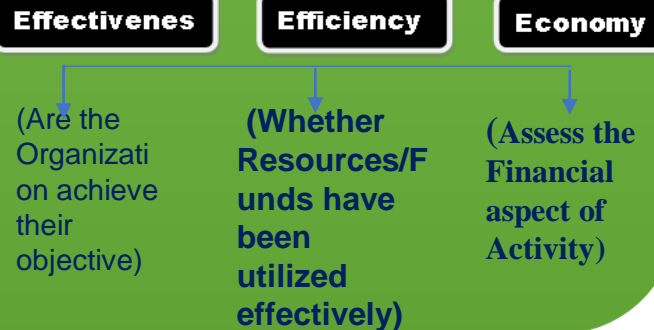
- **Competitive Benchmarking:**It involves the comparison of competitors products, processes and business results with own. Benchmarking partners are drawn from the same sector. However, to protect confidentiality it is common for the companies to undertake this type of benchmarking through trade associations or third parties.
- **Strategic Benchmarking:** It is similar to the process benchmarking in nature but differs in its scope and depth. It involves a systematic process by which a company seek to improve their overall performance by examining the long term strategies.It involves comparing high level aspects such as developing new products and services, core competencies etc.
- **Global Benchmarking:**It is a benchmarking through which distinction in international culture, business processes and trade practices across companies are bridged and their ramification for business process improvement are understood and utilised. Globalisation and advances in information technology leads to use this type of benchmarking.
- **Process Benchmarking:**It involves the comparison of an organization critical business processes and operations against best practice organization that performs similar work or deliver similar services. For example, how do best practice organizations process customers' orders.
- **Functional Benchmarking:** This type of benchmarking is used when organizations look to benchmark with partners drawn from different business sectors or areas of activity to find ways of improving similar functions or work processes. This sort of benchmarking can lead to innovation and dramatic improvements.
- **Internal Benchmarking:** involves seeking partners from within the same organization, for example, from business units located in different areas. The main advantages of internal benchmarking are that access to sensitive data and information are easier; standardised data is often readily available; and, usually less time and resources are needed. There may be fewer barriers to implementation as practices may be relatively easy to transfer across the same organization. However, real innovation may be lacking and best in class performance is more likely to be found through external benchmarking.
- **External Benchmarking** involves seeking help of outside organizations that are known to be best in class. External benchmarking provides opportunities of learning from those who are at the leading edge, although it must be remembered that not every best practice solution can be transferred to others. In addition, this type of benchmarking may take up more time and resource to ensure the comparability of data and information, the credibility of the findings and the development of sound recommendations.

Value for Money (VFM) Framework

A framework which can be used for measurement of performance in not-for-profit sector is the Value for Money framework. Not-for-profit organisations are expected to provide value for money which is demonstrated by:



Value For Money



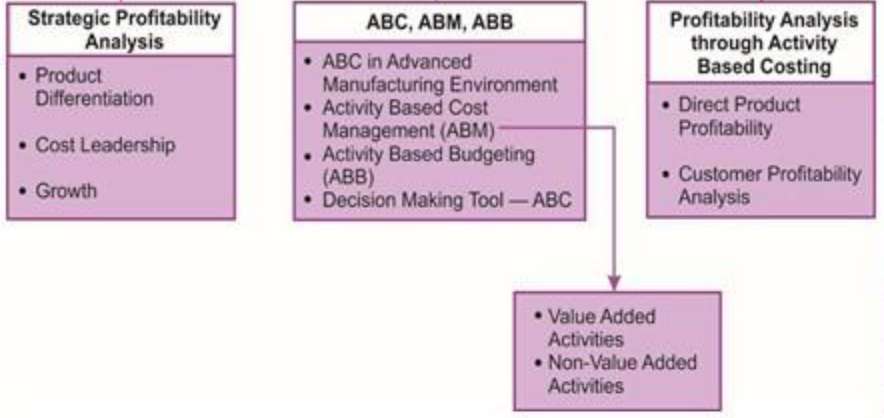
BENCHMARKING

- (i) Identifying
- (ii) Understanding , and
- (iii) Adapting best practices

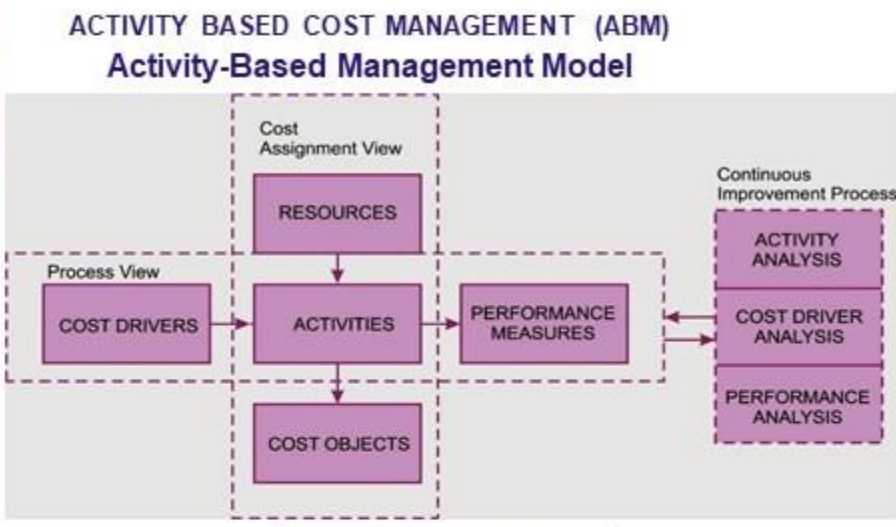
Benchmarking Stages:-

- Understand current Performance
- Comparison with Leaders
- Learn from Leaders
- Implement to close performance Gap

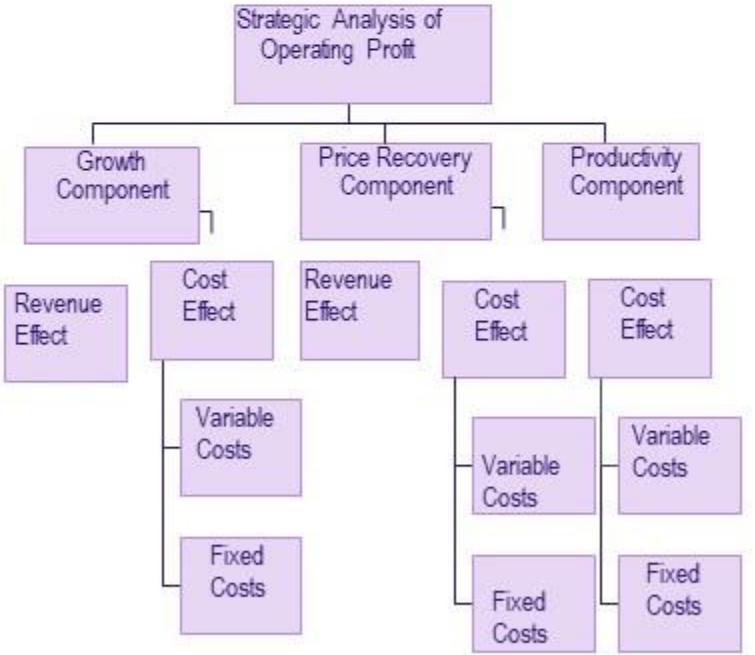
Profitability Analysis



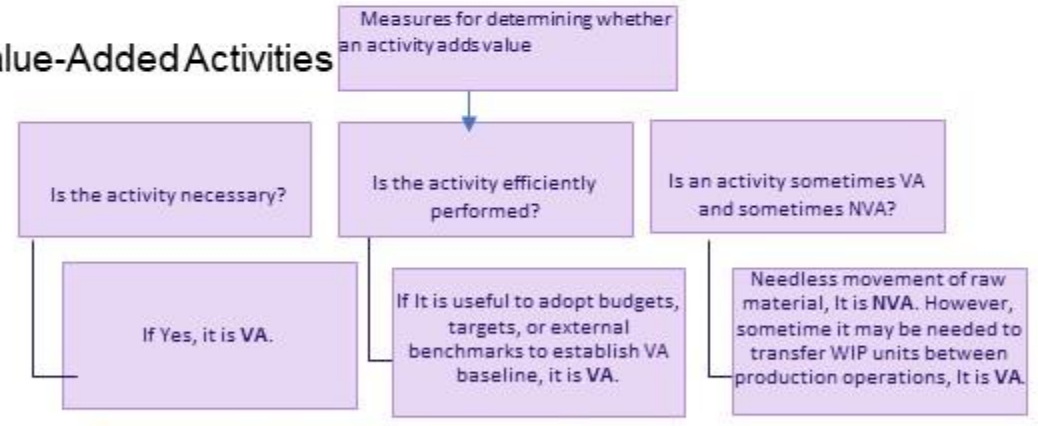
CH-10 Strategic Analysis of Operating Income



STRATEGIC PROFITABILITY ANALYSIS



Value-Added Activities



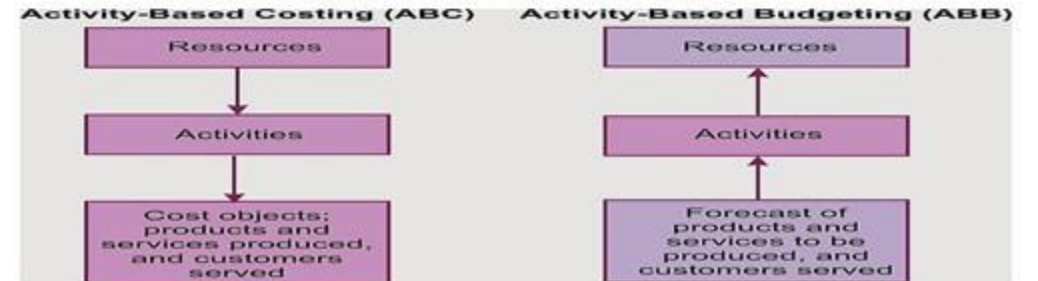
Business Applications of ABM

- Cost Reduction
- Activity Based Budgeting
- Business Process Re-engineering
- Benchmarking
- Performance Measurement

Non-Value-Added Activities



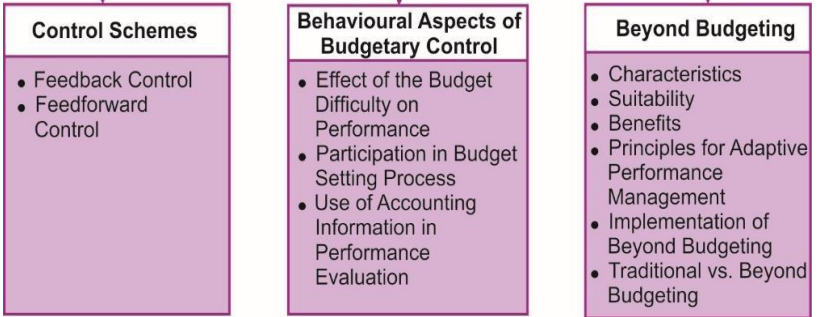
ACTIVITY BASED BUDGETING (ABB)



CH-11 Budgetary Control

Budgetary Control

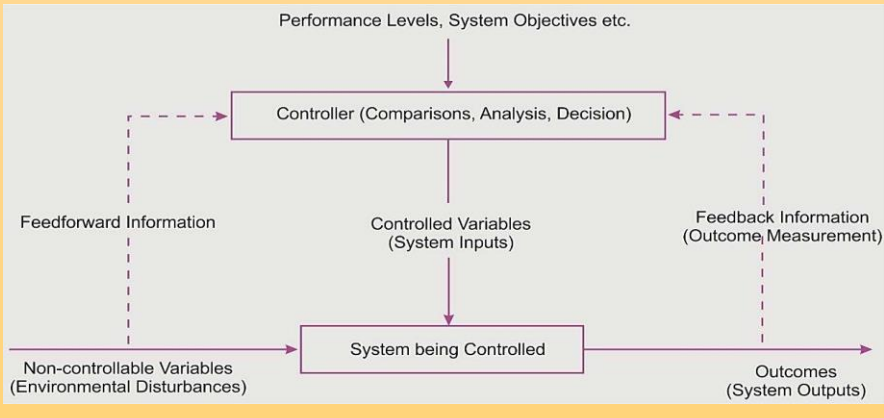
Limitations of Traditional Budgets



BUDGETARY CONTROL

Budgetary Control is “Systematic control of an organization’s operations through establishment of standards and targets regarding income and expenditure, and a continuous monitoring and adjustment of performance against them.”

FEEDBACK AND FEED-FORWARD CONTROL

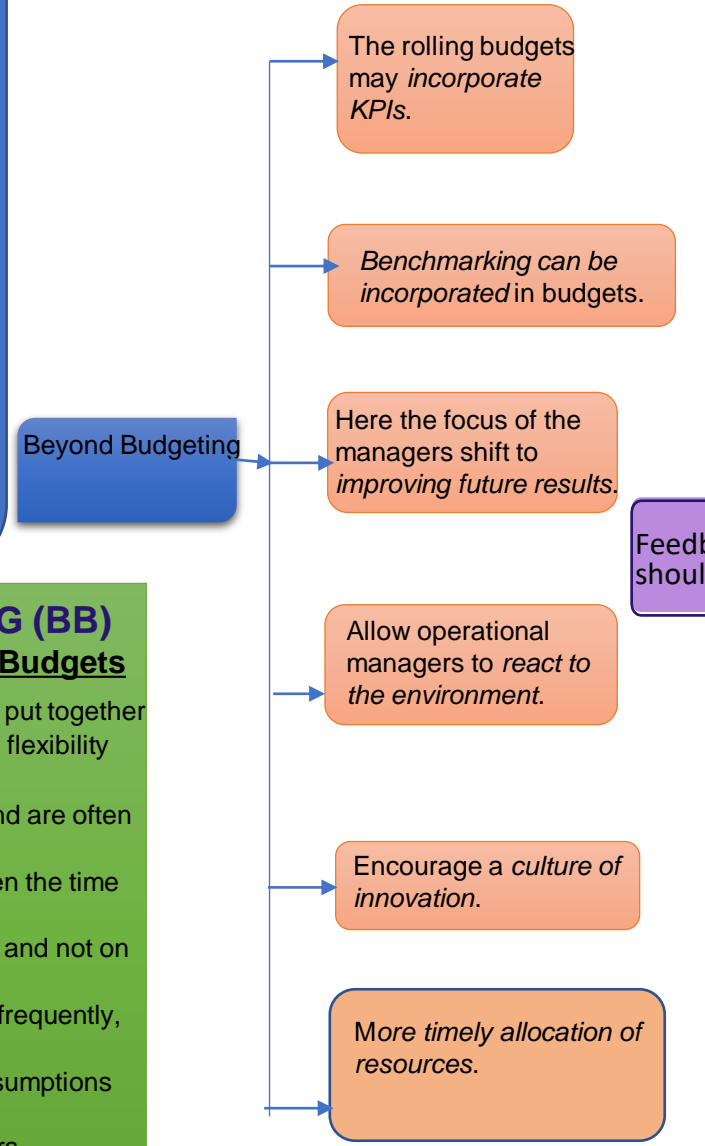


- 4 types of Feedback**
- Primary control
 - Secondary control
 - Positive control
 - Negative Control

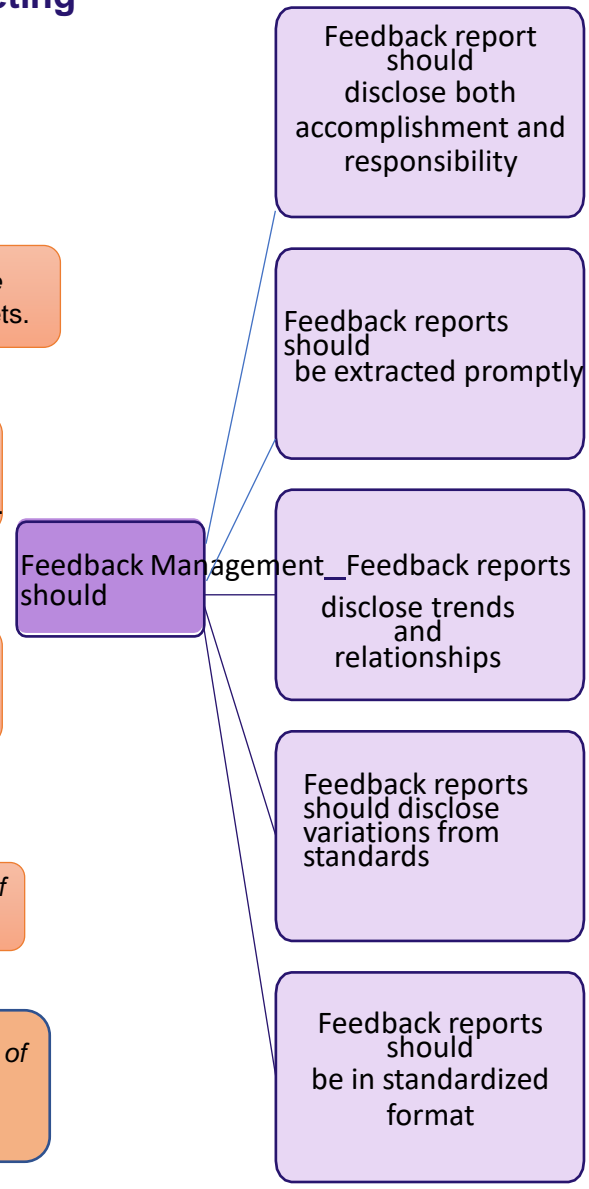
Control Reports
Control reports are feedback devices, but they are only part of the feedback system. A control report does not by itself cause a change in performance. A change results only when managers take actions that lead to change. Norton Bedford suggested the following five guidelines for feedback management control reports

- BEYOND BUDGETING (BB) Limitations of Traditional Budgets**
- Time-consuming and costly to put together
 - Constrain responsiveness and flexibility
 - Often a barrier to change
 - Rarely strategically focused and are often contradictory
 - Add little value, especially given the time required to prepare
 - Concentrate on cost reduction and not on value creation
 - Developed and updated too infrequently, usually annually
 - Are based on unsupported assumptions and guesswork
 - Reinforce departmental barriers rather than encourage knowledge sharing
 - Make people feel undervalued.

Characteristics of Beyond Budgeting



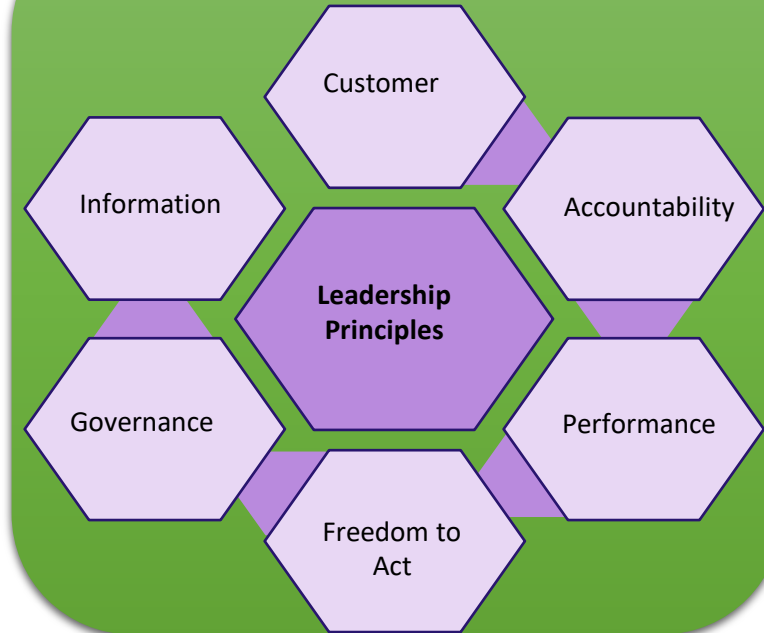
Feedback mgt control Report



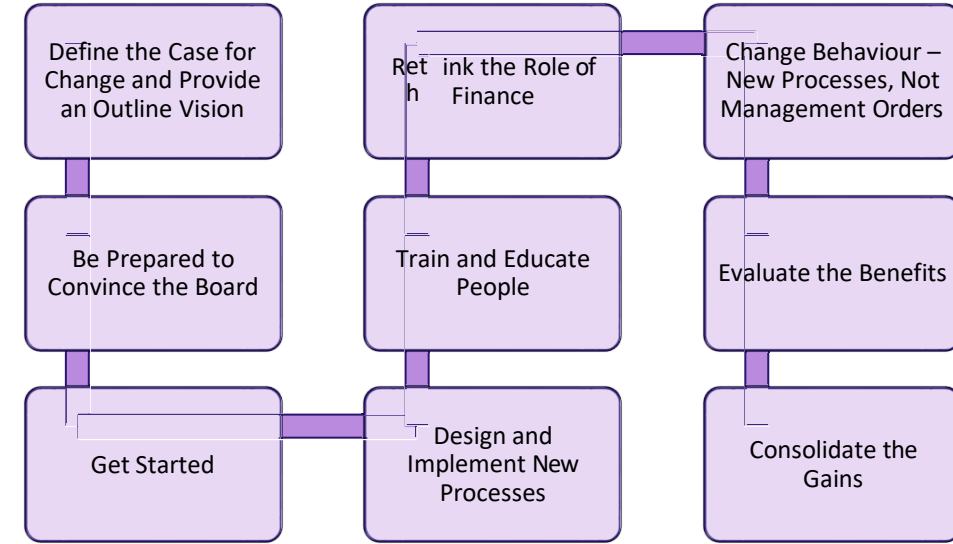
Beyond Budgeting – Principles for Adaptive Performance Management



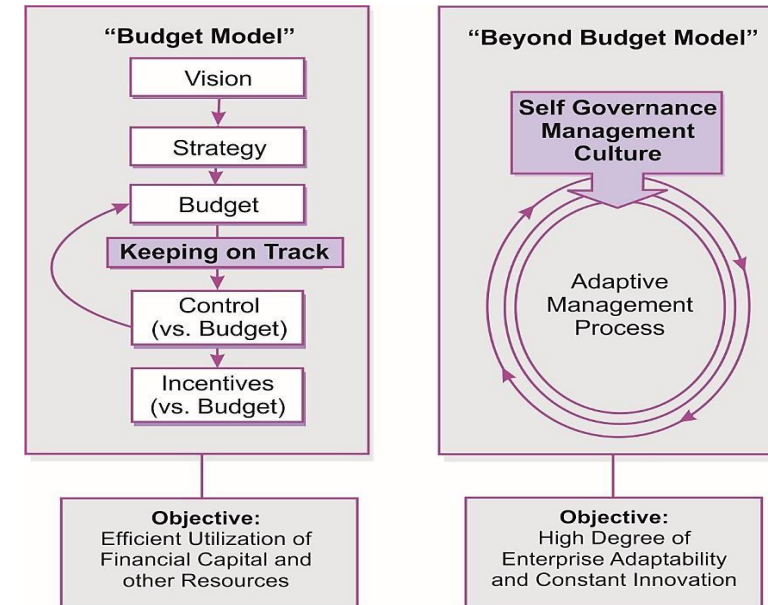
Leadership Principles



Implementation of Beyond Budgeting



Traditional vs Beyond Budgeting Model



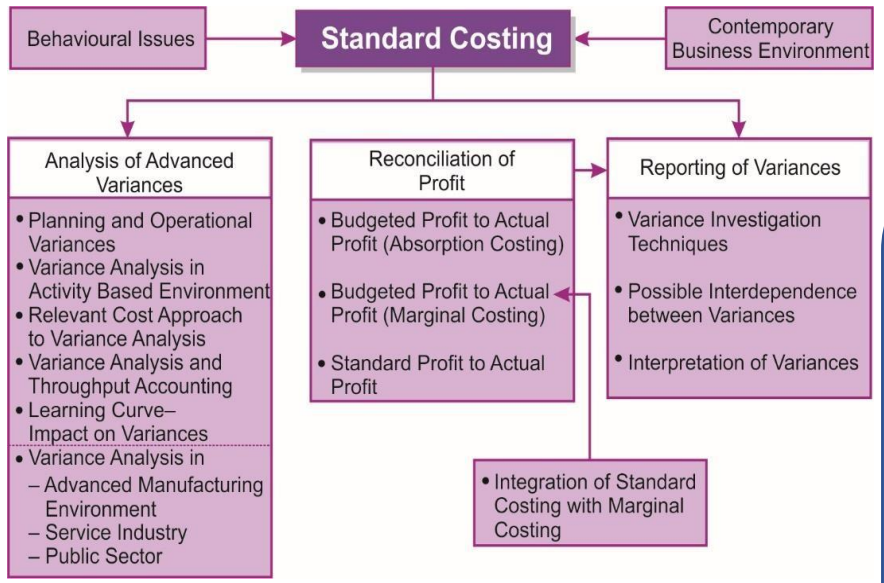
Goals	Set aspirational goals aimed at continuous improvement, not fixed annual targets.
Rewards	Reward shared success based on relative performance, not on meeting fixed annual targets.
Planning	Make planning a continuous and inclusive process, not an annual event.
Controls	Base controls on relative key performance indicators (KPIs) and performance trends, not variances against a plan.
Resources	Make resources available as needed, not through annual budget allocations.
Co-ordination	Co-ordinate cross-company interactions dynamically, not through annual planning cycles.

Customer	Focus everyone on improving customer outcomes, not on meeting internal targets.
Accountability	Create a network of teams accountable for results, not centralised hierarchies.
Performance	Champion success as winning in the marketplace, not on meeting internal targets.
Freedom to Act	Give teams the freedom and capability to act, don't merely require adherence to plan.
Governance	Base governance on clear values and boundaries, not detailed rules and budgets.
Information	Promote open and shared information, don't restrict it to those who 'need to know'.

Objective:
Efficient Utilization of Financial Capital and other Resources

Objective:
High Degree of Enterprise Adaptability and Constant Innovation

CH-12 STANDARD COSTING



ANALYSIS OF ADVANCED VARIANCES

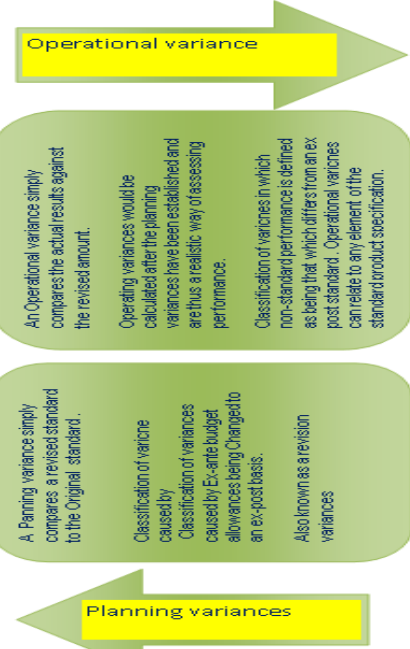
Variance analysis is examinable both at Intermediate Level (Cost and Management Accounting) and at Final Level (Strategic Cost Management and Performance Evaluation). One main difference in syllabus between the two papers is that the Final Level syllabus includes analysis of advanced variances, as follows:

- Planning and Operational Variances
- Variance Analysis in Activity Based Costing
- Learning Curve Impact on Variances
- Relevant Cost Approach to Variance Analysis
- Variance Analysis and Throughput Accounting
- Variance Analysis in Advanced Manufacturing Environment
- Variance Analysis in Service Industry
- Variance Analysis in Public Services

Planning & Operational Variances

When the current environmental conditions are different from the anticipated environmental conditions (prevailing at the time of setting standard or plans) the use of routine analysis of variance for measuring managerial performance is not desirable / suitable. The variance analysis can be useful for measuring managerial performance if the variances computed are determined on the basis of revised targets / standards based on current actual environmental conditions.

In order to deal with the above situation i.e. to measure managerial performance with reference to material, labour and sales variances, is necessary to compute the Planning and Operational Variances.

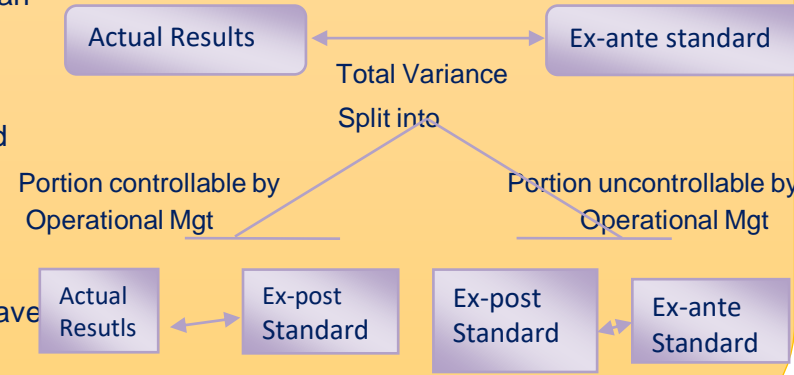


Standard ex ante

Before the event. An ex ante budget or standard is set before a period of activity commences.

Standard, ex post

After the event. An ex post budget, or standard, is set after the end of a period of activity, when it can represent the optimum achievable level of performance in the conditions which were experienced. Thus, the budget can be flexed, and standards can reflect factors such as unanticipated changes in technology and in price levels. This approach may be used in conjunction with sophisticated cost and revenue modelling to determine how far both the plan and the achieved results differed from the performance that would have been expected in the circumstances which were experienced.



Direct Material Price Variance

Traditional Variance
Actual vs. Original Standard
 $[\text{Standard Price} - \text{Actual Price}] \times \text{Actual Quantity}$



Planning Variance

Revised Standard vs. Original Standard
 $[\text{Standard Price} - \text{Revised Standard Price}] \times \text{Revised Standard Quantity}$

Operational Variance

Actual vs. Revised Standard
 $[\text{Revised Standard Price} - \text{Actual Price}] \times \text{Actual Quantity}$

Direct Material Usage Variance

Traditional Variance
Actual vs. Original Standard
 $[\text{Standard Quantity} - \text{Actual Quantity}] \times \text{Standard Price}$



Planning Variance

Revised Standard vs. Original Standard
 $[\text{Standard Quantity} - \text{Revised Standard Quantity}] \times \text{Standard Price}$

Operational Variance

Actual vs. Revised Standard
 $[\text{Revised Standard Quantity} - \text{Actual Quantity}] \times \text{Revised Standard Price}$

Direct Labour Efficiency Variance

Traditional Variance
Actual vs. Original Standard
 $[\text{Standard Time} - \text{Actual Time}] \times \text{Standard Rate}$



Planning Variance

Revised Standard vs. Original Standard
 $[\text{Standard Time} - \text{Revised Standard Time}] \times \text{Standard Rate}$

Operational Variance

Actual vs. Revised Standard
 $[\text{Revised Standard Time} - \text{Actual Time}] \times \text{Revised Standard Rate}$

Direct Labour Rate Variance

Traditional Variance
Actual vs. Original Standard
 $[\text{Standard Rate} - \text{Actual Rate}] \times \text{Actual Time}$



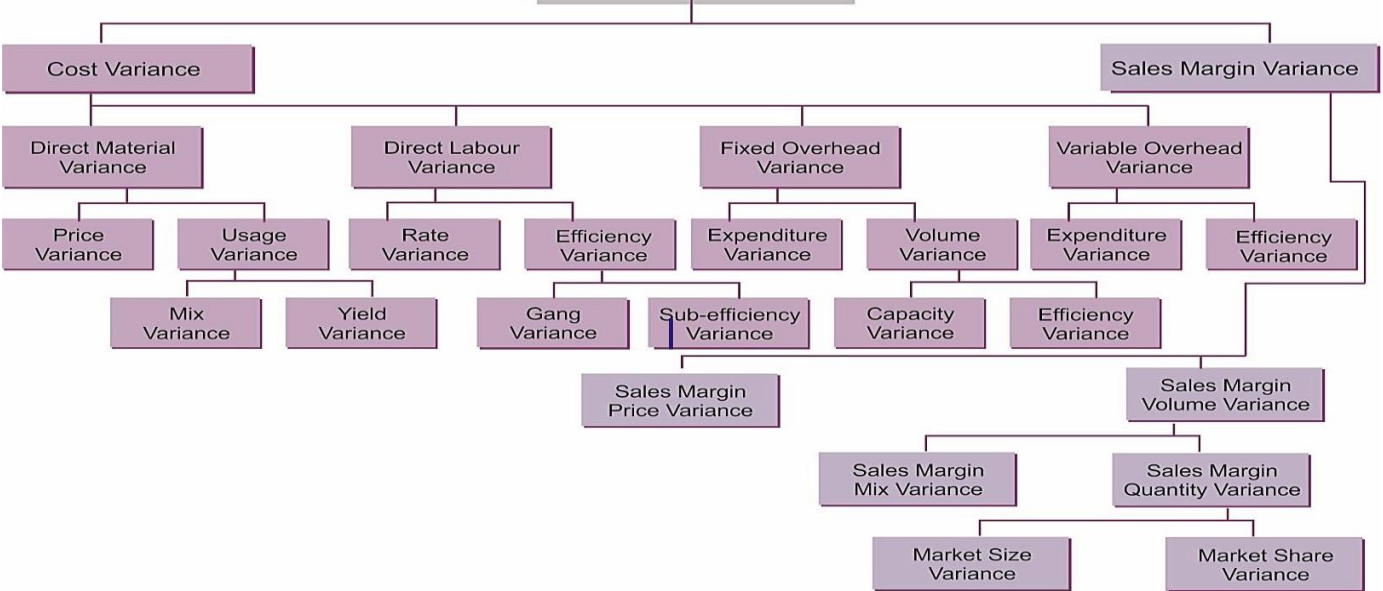
Planning Variance

Revised Standard vs. Original Standard
 $[\text{Standard Rate} - \text{Revised Standard Rate}] \times \text{Revised Standard Time}$

Operational Variance

Actual vs. Revised Standard
 $[\text{Revised Standard Rate} - \text{Actual Rate}] \times \text{Actual Time}$

OPERATING PROFIT VARIANCE



Sales Variances (Absorption Costing)

Sales Margin Variance*
 (Actual Margin) Less (Budgeted Margin)
 $[(AQ \times AM) - (BQ \times SM)]$

Sales Margin Price Variance
 (Actual Margin)
 Less
 (Standard Margin)
 $[(AM \times AQ) - (SM \times AQ)]$
 Or
 $[AQ \times (AM - SM)]$

Sales Margin Volume Variance
 (Standard Margin)
 Less
 (Budgeted Margin)
 $[(SM \times AQ) - (SM \times BQ)]$
 Or
 $[SM \times (AQ - BQ)]$

Sales Margin Mix Variance
 (Standard Margin)
 Less
 (Revised Standard Margin)
 $(AQ \times SM) - (RAQ \times SM)$
 Or
 $SM \times (AQ - RAQ)$

Sales Margin Quantity Variance
 (Revised Standard Margin)
 Less
 (Budgeted Margin)
 $(RAQ \times SM) - (BQ \times SM)$
 Or
 $SM \times (RAQ - BQ)$

Alternative Formula
 $[Total Actual Qty. (units) \times \{Average Standard Margin per unit of Actual Mix Less Average Budgeted Margin per unit of Budgeted Mix\}]$

Alternative Formula
 $[Average Budgeted Margin per unit of Budgeted Mix \times \{Total Actual Qty. (units) Less Total Budgeted Qty. (units)\}]$

Market Size Variance
 $[Budgeted Market Share \% \times (Actual Industry Sales Quantity in units - Budgeted Industry Sales Quantity in units) \times (Average Budgeted Margin per unit)]$

Market Share Variance
 $[(Actual Market Share \% - Budgeted Market Share \% \times (Actual Industry Sales Quantity in units) \times (Average Budgeted Margin per unit)]$

Market Size Variance
 $Budgeted Market Share \% \times (Actual Industry Sales Quantity in units - Budgeted Industry Sales Quantity in units) \times (Average Budgeted Margin per unit)$
 Or
 $(Budgeted Market Share \% \times Actual Industry Sales Quantity in units - Budgeted Market Share \% \times Budgeted Industry Sales Quantity in units) \times (Average Budgeted Margin per unit)$
 Or
 $(Required Sales Quantity in units - Total Budgeted Quantity in units) \times (Average Budgeted Margin per unit)$

Market Share Variance
 $(Actual Market Share \% - Budgeted Market Share \% \times (Actual Industry Sales Quantity in units) \times (Average Budgeted Margin per unit)$
 Or
 $(Actual Market Share \% \times Actual Industry Sales Quantity in units - Budgeted Market Share \% \times Actual Industry Sales Quantity in units) \times (Average Budgeted Margin per unit)$
 Or
 $(Total Actual Quantity in units - Required Sales Quantity in units) \times (Average Budgeted Margin per unit)$

Market Size Variance + Market Share Variance
 $(Required Sales Quantity in units - Total Budgeted Quantity in units) \times (Average Budgeted Margin per unit)$
 Add
 $(Total Actual Quantity in units - Required Sales Quantity in units) \times (Average Budgeted Margin per unit)$
 Equals to $(Total Actual Quantity in units - Total Budgeted Quantity in units) \times (Average Budgeted Margin per unit)$

Sales Margin Quantity Variance

Sales Variances (Marginal Costing)

Sales Contribution Variance

(Actual Contribution) Less (Budgeted Contribution)

$$[(AQ \times AC) - (BQ \times SC)]$$

Sales Contribution Price Variance

(Actual Contribution)

Less

(Standard Contribution)

$$[(AC \times AQ) - (SC \times AQ)]$$

Or

$$[AQ \times (AC - SC)]$$

Sales Contribution Volume Variance

(Standard Contribution)

Less

(Budgeted Contribution)

$$[(SC \times AQ) - (SC \times BQ)]$$

Or

$$[SC \times (AQ - BQ)]$$

Sales Contribution Mix Variance

(Standard Contribution)

Less

(Revised Standard

Contribution) (AQ × SC) –

(RAQ × SC)

Or

$$SC \times (AQ - RAQ)$$

Sales Contribution Quantity Variance

(Revised Standard Contribution)

Less

(Budgeted Contribution)

(RAQ × SC) – (BQ × SC)

Or

$$SC \times (RAQ - BQ)$$

Alternative Formula

[Total Actual Qty. (units) × {Average Standard Contribution per unit of Actual Mix} Less Average Budgeted Contribution per unit of Budgeted Mix]

Alternative Formula

[Average Budgeted Contribution per unit of Budgeted Mix × {Total Actual Qty. (units) Less Total Budgeted Qty. (units)}]

Market Size Variance

[Budgeted Market Share % × (Actual Industry Sales Quantity in units – Budgeted Industry Sales Quantity in units) × (Average Budgeted Contribution per unit)]

Market Share Variance

[(Actual Market Share % – Budgeted Market Share %) × (Actual Industry Sales Quantity in units) × (Average Budgeted Contribution per unit)]

Note:

BQ = Budgeted Sales Quantity AQ = Actual Sales Quantity

RAQ = Revised Actual Sales Quantity

= Actual Quantity Sold Rewritten in Budgeted Proportion SC = Standard Contribution

= Standard Price per Unit – Standard Cost (variable) per Unit AC = Actual Contribution

= Actual Sales Price per Unit – Standard Cost (variable) per Unit

Market Size Variance

Budgeted Market Share % × (Actual Industry Sales Quantity *in units* – Budgeted Industry Sales Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Or

(Budgeted Market Share % × Actual Industry Sales Quantity *in units* – Budgeted Market Share % × Budgeted Industry Sales Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Or

(Required Sales Quantity *in units* – Total Budgeted Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Market Share Variance

(Actual Market Share % – Budgeted Market Share %) × (Actual Industry Sales Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Or

(Actual Market Share % × Actual Industry Sales Quantity *in units* – Budgeted Market Share % × Actual Industry Sales Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Or

(Total Actual Quantity *in units* – Required Sales Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Market Size Variance + Market Share Variance

(Required Sales Quantity *in units* – Total Budgeted Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Add

(Total Actual Quantity *in units* – Required Sales Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Equals to

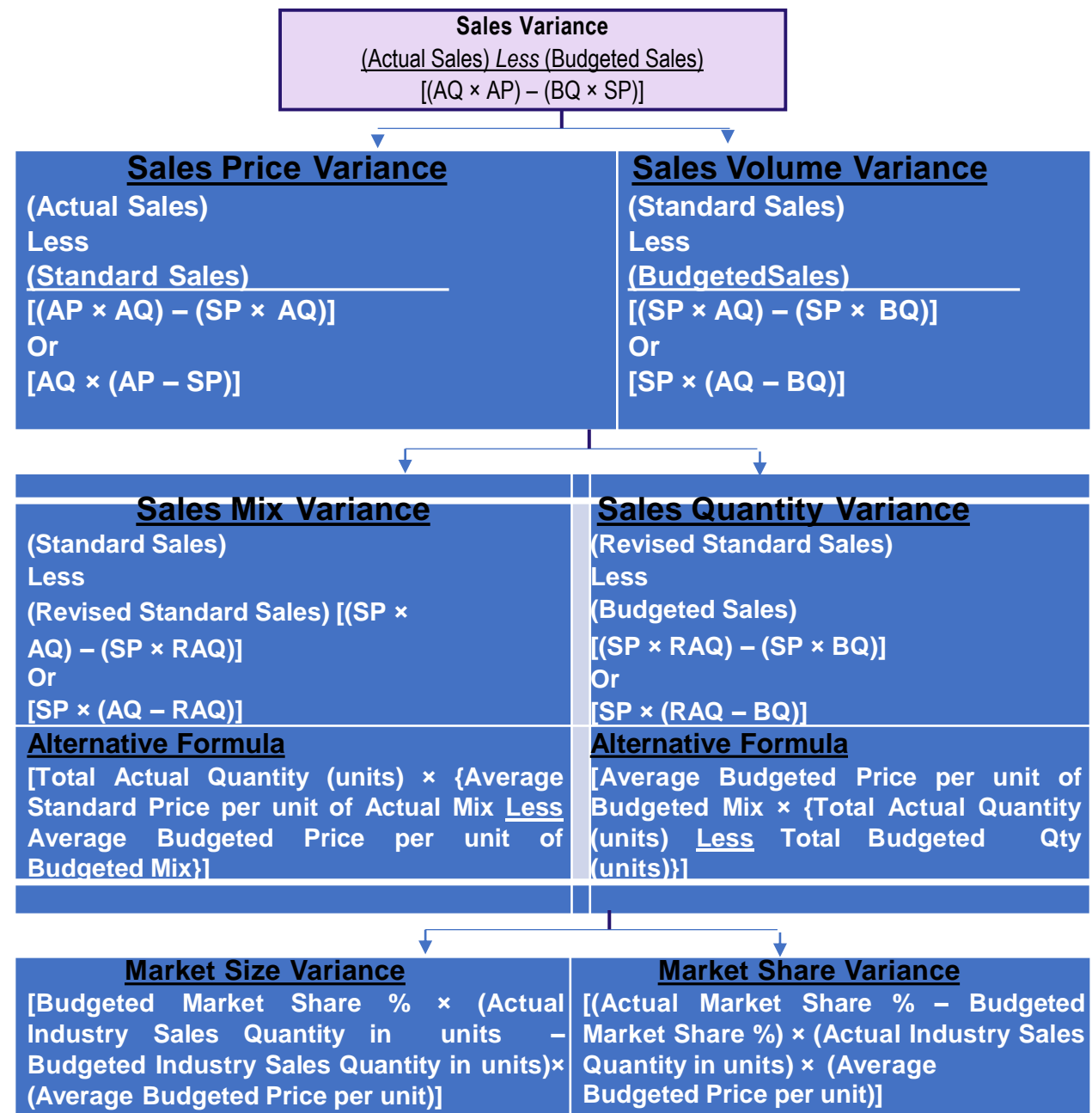
(Total Actual Quantity *in units* – Total Budgeted Quantity *in units*) × (Average Budgeted Contribution *per unit*)

Relation: Sales Margin Volume Variance in terms of Profit & Contribution

Sales Margin Volume Variance	Standard Margin Per Unit × (Actual Quantity – Budgeted Quantity) Or
Sales Margin Volume Variance	[Standard Contribution Per Unit – Standard Fixed Overheads Per Unit] × (Actual Quantity – Budgeted Quantity) Or
Sales Margin Volume Variance	[Standard Contribution Per Unit × (Actual Quantity – Budgeted Quantity)] – [Standard Fixed Overheads Per Unit × (Actual Quantity – Budgeted Quantity)] Or
Sales Margin Volume Variance	Sales Contribution Volume Variance – Fixed Overhead Volume Variance Or
Sales Contribution Volume Variance	Sales Margin Volume Variance + Fixed Overhead Volume Variance

Note: Production units equals to Sales units for both actual & budget.

Sales Variances (Turnover or Value)



Market Size variances

Market Size Variance

Budgeted Market Share % × (Actual Industry Sales Quantity *in units* – Budgeted Industry Sales Quantity *in units*) × (Average Budgeted Price *per unit*)

Or

(Budgeted Market Share % × Actual Industry Sales Quantity *in units* – Budgeted Market Share % × Budgeted Industry Sales Quantity *in units*) × (Average Budgeted Price *per unit*)

Or

(Required Sales Quantity *in units* – Total Budgeted Quantity *in units*) × (Average Budgeted Price *per unit*)

Market Share Variance

(Actual Market Share % – Budgeted Market Share %) × (Actual Industry Sales Quantity *in units*) × (Average Budgeted Price *per unit*)

Or

(Actual Market Share % × Actual Industry Sales Quantity *in units* – Budgeted Market Share % × Actual Industry Sales Quantity *in units*) × (Average Budgeted Price *per unit*)

Or

(Total Actual Quantity *in units* – Required Sales Quantity *in units*) × (Average Budgeted Price *per unit*)

Market Size Variance + Market Share Variance

(Required Sales Quantity *in units* – Total Budgeted Quantity *in units*) × (Average Budgeted Price *per unit*)

Add

(Total Actual Quantity *in units* – Required Sales Quantity *in units*) × (Average Budgeted Price *per unit*)

Equals to (Total Actual Quantity *in units* – Total Budgeted Quantity *in units*) × (Average Budgeted Price *per unit*)

Sales Quantity Variance

Direct Material Variances

Direct Material Total Variance#

[Standard Cost* – Actual Cost]

(The difference between the Standard Direct Material Cost of the actual production volume and the Actual Cost of Direct Material)

[(SQ × SP) – (AQ × AP)]

Direct Material Price Variance

[Standard Cost of Actual Quantity – Actual Cost]

(The difference between the Standard Price and Actual Price for the Actual Quantity)

[(SP – AP) × AQ]

Or

[(SP × AQ) – (AP × AQ)]

Direct Material Usage Variance

[Standard Cost of Standard Quantity for Actual Production – Standard Cost of Actual Quantity]

(The difference between the Standard Quantity specified for actual production and the Actual Quantity used, at Standard Purchase Price) [(SQ – AQ) × SP]

Or

[(SQ × SP) – (AQ × SP)]

Direct Material Mix Variance

[Standard Cost of Actual Quantity in Standard Proportion – Standard Cost of Actual Quantity]

(The difference between the Actual Quantity in standard proportion and Actual Quantity in actual proportion, at Standard Purchase Price)

[(RAQ – AQ) × SP]

Or

[(RAQ × SP) – (AQ × SP)]

Direct Material Yield Variance

[Standard Cost of Standard Quantity for Actual Production – Standard Cost of Actual Quantity in Standard Proportion]

(The difference between the Standard Quantity specified for actual production and Actual Quantity in standard proportion, at Standard Purchase Price)

[(SQ – RAQ) × SP]

Or

[(SQ × SP) – (RAQ × SP)]

Alternative Formula

[Total Actual Quantity (units) × {Average Standard Price per unit of Standard Mix Less Average Standard Price per unit of Actual Mix}]

Alternative Formula

[Average Standard Price per unit of Standard Mix × {Total Standard Quantity (units) Less Total Actual Quantity (units)}]

Direct Labour Variances

Direct Labour Total Variance:
 [Standard Cost₂ – Actual Cost]
 (The difference between the Standard Direct Labour Cost and the Actual Direct Labour Cost incurred for the production achieved)
 [(SH × SR) – (AH* × AR)]

Fixed Production Overhead Variances

Fixed Overhead Total Variance@
 (Absorbed Fixed Overheads) Less (Actual Fixed Overheads)

<p>Fixed Overhead Expenditure Variance (Budgeted Fixed Overheads) Less (Actual Fixed Overheads)</p>	<p>Fixed Overhead Volume Variance (Absorbed Fixed Overheads) Less (Budgeted Fixed Overheads)</p>
---	--

<p>Fixed Overhead Capacity Variance (Budgeted Fixed Overheads for Actual Hours#) Less (Budgeted Fixed Overheads)</p>	<p>Fixed Overhead Efficiency Variance (Absorbed Fixed Overheads) Less (Budgeted Fixed Overheads for Actual Hours#)</p>
--	--

Or

<p>Fixed Overhead Capacity Variance (Budgeted Fixed Overheads for Actual Hours#) Less (Possible Fixed Overheads)</p>	<p>Fixed Overhead Calendar Variance (Possible Fixed Overheads) Less (Budgeted Fixed Overheads)</p>	<p>Fixed Overhead Efficiency Variance (Absorbed Fixed Overhead) Less (Budgeted Fixed Overheads for Actual Hours#)</p>
--	--	---

Direct Labour Rate Variance
 [Standard Cost of Actual Time – Actual Cost]
 (The difference between the Standard Rate per hour and Actual Rate per hour for the Actual Hours paid)
 [(SR – AR) × AH*]
 Or
 [(SR × AH*) – (AR × AH*)]

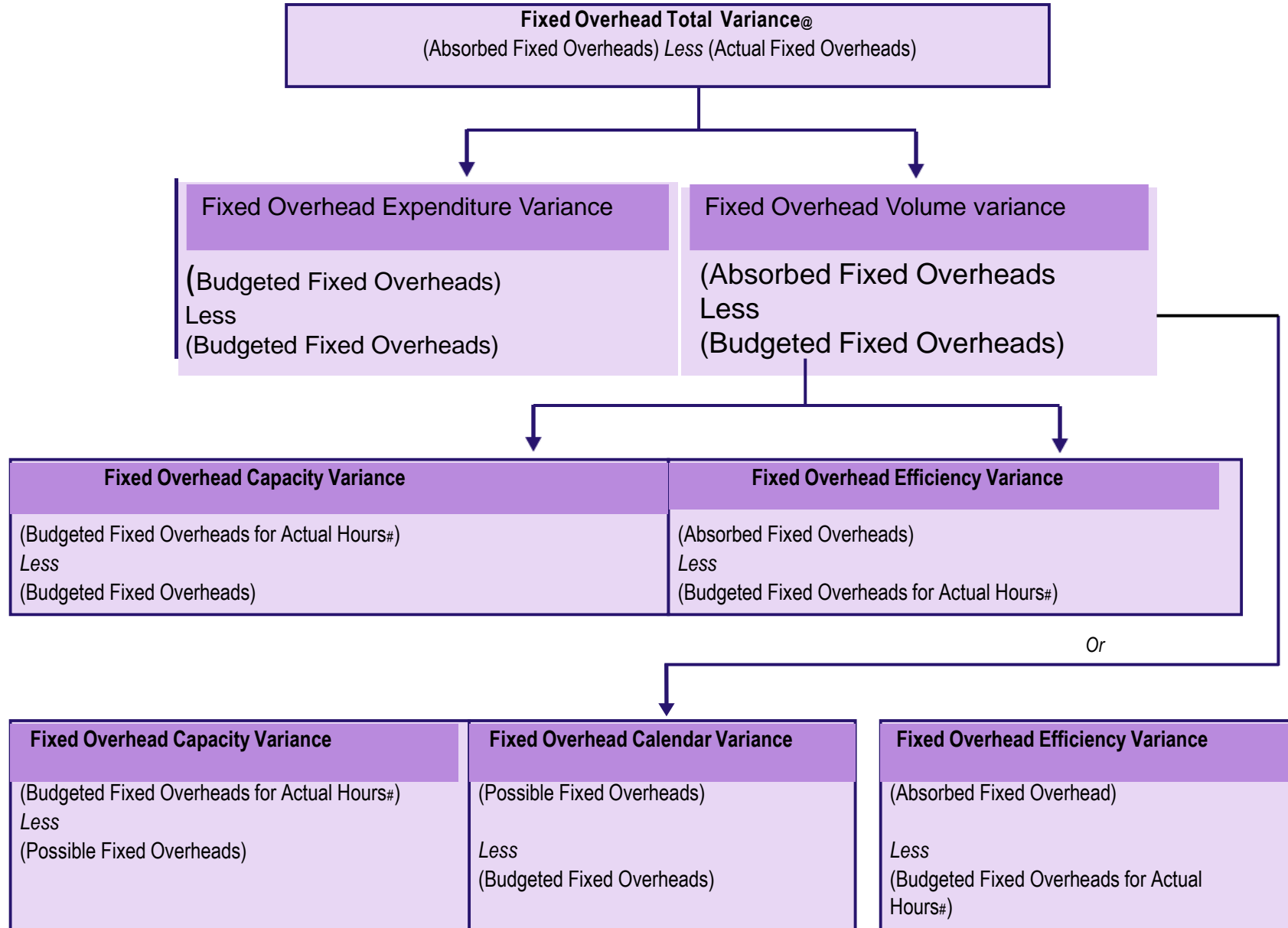
Direct Labour Idle Time Variance
 Standard Rate per Hour × Actual Idle Hours
 (The difference between the Actual Hours paid and Actual Hours worked at Standard Rate)
 [(AH* – AH#) × SR]
 Or
 [(AH* × SR) – (AH# × SR)]

Direct Labour Efficiency Variance
 [Standard Cost of Standard Time for Actual Production – Standard Cost of Actual Time]
 (The difference between the Standard Hours specified for actual production and Actual Hours worked at Standard Rate)
 [(SH – AH#) × SR]
 Or
 [(SH × SR) – (AH# × SR)]

Direct Labour Mix Variance Or Gang Variance
 [Standard Cost of Actual Time Worked in Standard Proportion – Standard Cost of Actual Time Worked]
 (The difference between the Actual Hours worked in standard proportion and Actual Hours worked in actual proportion, at Standard Rate)
 [(RAH – AH#) × SR]
 Or
 [(RAH × SR) – (AH# × SR)]
Alternate Formula
 [Total Actual Time Worked (hours) × {Average Standard Rate per hour of Standard Gang Less Average Standard Rate per hour of Actual Gang@}]
 @ on the basis of hours worked

Direct Labour Yield Variance Or Sub-Efficiency Variance
 [Standard Cost of Standard Time for Actual Production – Standard Cost of Actual Time Worked in Standard Proportion]
 (The difference between the Standard Hours specified for actual production and Actual Hours worked in standard proportion, at Standard Rate)
 (SH – RAH) × SR
 Or
 (SH × SR) – (RAH × SR)
Alternate Formula
 [Average Standard Rate per hour of Standard Gang × {Total Standard Time (hours) Less Total Actual Time Worked (hours)}]

Fixed Production Overhead Variances



FIXED OVERHEAD VARIANCES

Fixed Overhead Efficiency Variance

(Absorbed Fixed Overheads) – (Budgeted Fixed Overheads for Actual Hours)
Or
(Standard Fixed Overhead Rate per Hour × Standard Hours for Actual Output) –
(Standard Fixed Overhead Rate per Hour × Actual Hours)
Or
Standard Fixed Overhead Rate per Hour × (Standard Hours for Actual Output – Actual Hours)

Fixed Overhead Capacity Variance

(Budgeted Fixed Overheads for Actual Hours) – (Budgeted Fixed Overheads)
Or
(Standard Fixed Overhead Rate per Hour × Actual Hours) – (Standard Fixed Overhead Rate per Hour × Budgeted Hours)
Or
Standard Fixed Overhead Rate per Hour × (Actual Hours – Budgeted Hours)

Fixed Overhead Volume Variance-I

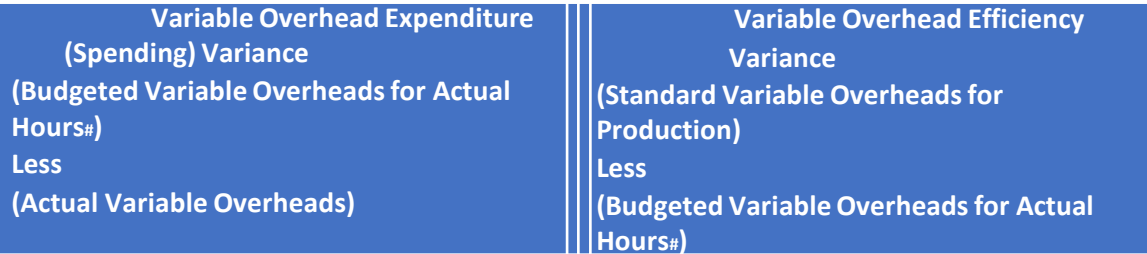
(Absorbed Fixed Overheads) – (Budgeted Fixed Overheads)
Or
(Standard Fixed Overhead Rate per Unit × Actual Output) – (Standard Fixed Overhead Rate per Unit × Budgeted Output)
Or
Standard Fixed Overhead Rate per Unit × (Actual Output – Budgeted Output)

Fixed Overhead Volume Variance-II

(Absorbed Fixed Overheads) – (Budgeted Fixed Overheads)
Or
(Standard Fixed Overhead Rate per Hour × Standard Hours for Actual Output) –
(Standard Fixed Overhead Rate per Hour × Budgeted Hours)
Or
Standard Fixed Overhead Rate per Hour × (Standard Hours for Actual Output – Budgeted Hours)
Or
Standard Fixed Overhead Rate per Hour × (Standard Hours per Unit × Actual Output – Standard Hours per Unit × Budgeted Output)
Or
(Standard Fixed Overhead Rate per Hour × Standard Hours per Unit) × (Actual Output – Budgeted Output)
Or
Standard Fixed Overhead Rate per Unit × (Actual Output – Budgeted Output)

Variable Production Overhead Variances

Variable Overhead Total Variance@
 (Standard Variable Overheads for Production – Actual Variable Overheads)



Variable Overhead Efficiency Variance
 (Standard Variable Overheads for Production) – (Budgeted Overheads for Actual Hours)
 Or
 (Standard Variable Overhead Rate per Hour × Standard Hours for Actual Output) –
 (Standard Variable Overhead Rate per Hour × Actual Hours)
 Or
 Standard Variable Overhead Rate per Hour × (Standard Hours for Actual Output – Actual hours)

Variable Overhead Expenditure Variance
 (Budgeted Variable Overheads for Actual Hours) – (Actual Variable Overheads)
 Or
 (Standard Rate per Hour × Actual Hours) – (Actual Rate per Hour × Actual Hours)
 Or
 Actual Hours × (Standard Rate per Hour – Actual Rate per Hour)

STANDARD COSTING IN CONTEMPORARY BUSINESS ENVIRONMENT

