

GEORGEMON
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STRATEGIC COST & PERFORMANCE MANAGEMENT

CA FINAL - SET B Summary Notes

SELF PACED ONLINE MODULE

2024 onwards



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Chapter 1 - An Introduction to Strategic Cost Management [Chapter Consist of 5 Parts]

Part 1 - Managing Cost Strategically

Traditional Cost Management	Strategic Cost Management
<ul style="list-style-type: none"> - Broad Focus on Cost Reduction - Ignore Competition, Market Growth and customer requirement. - Quantity in Nature. - Short Term Outlook (Quarter, Month) - Not considering Intrinsic Cost. - Reactive Approach (Corrective Approach) 	<ul style="list-style-type: none"> - Detailed Cost Analysis - Use cost information to gain and sustain competitive advantage. - Allocation of Cost [Relevant Cost - ABC Analysis] - Long Term or Perpetual Approach - Proactive & Dynamic Approach.

Strategic Cost Management [3 Pillars]

Value Chain Analysis || Strategic Position Analysis || Cost Driver Analysis

A) Value Chain Analysis

Meaning:

- Identifying the **Key Value Drivers [CSFs]** and categorizing them into **value added and non-value added** in order to gain competitive advantage.

Activities	Strategy	Competitive Advantage
Value Added	Focus on value added activities	Obtain Cost leadership
Non-Value Added	Eliminating non-value added activities	Improve Cost Differentiation

So it requires **Strategic Framework** to collect information Strategically,

Industry Structure Analysis	Core Competencies Analysis	Segmentation Analysis
To Determine Industry Profitability and basis of competition.	Determine whether org. possess Key Success Factors.	To Understand customers and markets.

Purpose: **of value chain analysis**

Gain **competitive advantage** by analyzing and optimizing the **accumulation of value** across different stages of the process.

Activities:[Michael Porter]

- Primary Activities.
 - Secondary Activities.
- 1. Primary Activities:** Directly involved transformation of product or provisioning of service.

Inbound Logistics	Operations	Outbound Logistics	Marketing and Sales	After Sales Services¹
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- 2. Secondary Activities:** Ensure support to perform primary activities.

Firm Infrastructure	Technology Development	Human Resource Mgt.	Procurement
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Eg.

1. Serum Institute of India - Acquires 20% stake in IntegriMedical to advance Needle Free Injection System Technology.

¹ Refer Practical Insights and Illustrations in SM.



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B) Strategic Positioning

Analysis of Company's **relative position** within that strategic segment of industry

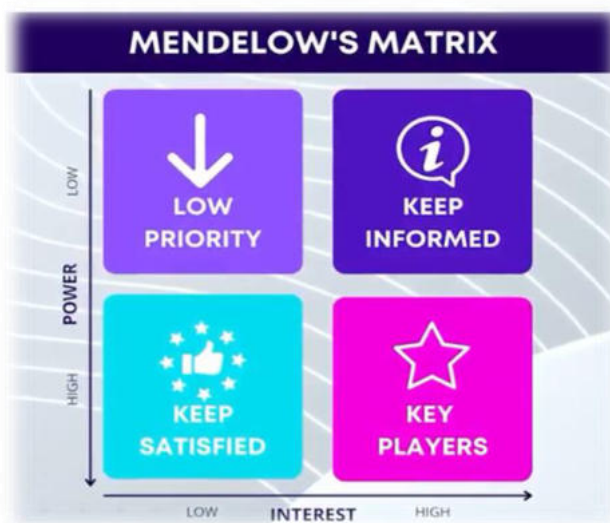
- that matters for the purpose of **establishing performance targets**
- in addition to determining **means of attaining the same**; and
- Then **measurement of performance and evaluation thereof**.

It is the **Study of**

Vision and Values	Mission and Objectives	SWOT	
Culture, beliefs and assumptions of the Org.	Stakeholders influence and expectations	Strengths and Weaknesses	Opportunities and Threats

Analysis should translate into following: **Differentiation** **Cost Leadership**

Mendelow's Matrix on Stakeholders' attitudes:



C) Cost Driver Analysis

Examination | Quantification | Explanation of the monetary effects of the Cost Drivers associated with an activity.

Supporting Cost

Resources Drivers		Activities Drivers	
Organizational Activities & Drivers		Operational Activities & Drivers	
Structural Activities & Drivers	Executorial Activities & Drivers		

Key Tools of SCM and their Nature

1. Activity Based Costing - accuracy in allocating Indirect Costs.
2. Benchmarking - Determine Critical Success Factor → Study ideal procedures of other org. → improve operations and dominate market.

3. Competitive Advantage Analysis - Excel over rivals.
4. JIT - Comprehensive systems - buy materials and produce Commodities [JIT Purchase/ JIT Production]
5. Kaizen Continuous Improvement - in quality and other CSF.
6. Total Quality Mgt. - policies and procedures to meet customer expectations. [Logistics - E-commerce Firms]
7. Value Chain Analysis.
8. Theory of Constraints - increase efficiency [Improve rate].
9. Target Costing.

Part 2 - Organization Context

Gaining Competitive Advantage through -

Product Differentiation:	Cost Leadership:
Marketing Cost Analysis - Very Critical	Role of Standard Costing - Very High.
Distinctive Value to customers	Highly competitive market.
Not Price Sensitive	Price Sensitive Customer

Steps in Value Chain Analysis [3 Steps]

I] Identity Value Chain Activities	II] Determine Cost and Value of Activities	III] Identify Opportunities for Competitive Advantage. Analysis available are: →
1. Internal Cost Analysis	2. Internal Differentiation Analysis	3. Vertical Linkage Analysis
Steps: *identify Firms value creating processes. *Portion of total cost to value creating process. *Identify cost driver. * link btw processes. * evaluate opportunity - CA.	Steps: *customer's value creating process. *evaluate differentiation strategies - increase customer value. *determine best sustainable differentiation strategy.	*creating extensible org. by extending value across the firms of supplier and users.

Analysis used to collect information for the above specified analysis → Strategic Framework. ²

Business Model [Refer Pg. No.: 1.28]

Business Model Canvas by Osterwalder - Nine Element Business Model

- Four elements pertaining to **Cost** [Key Partners/ Key Activities/ Key Resources/ Cost Structure] are:
- connected to another four elements of **Revenue** [Customer Relationship/ Customer Segment/ Channels/ Revenue Streams];
- Through **Value Proposition.**

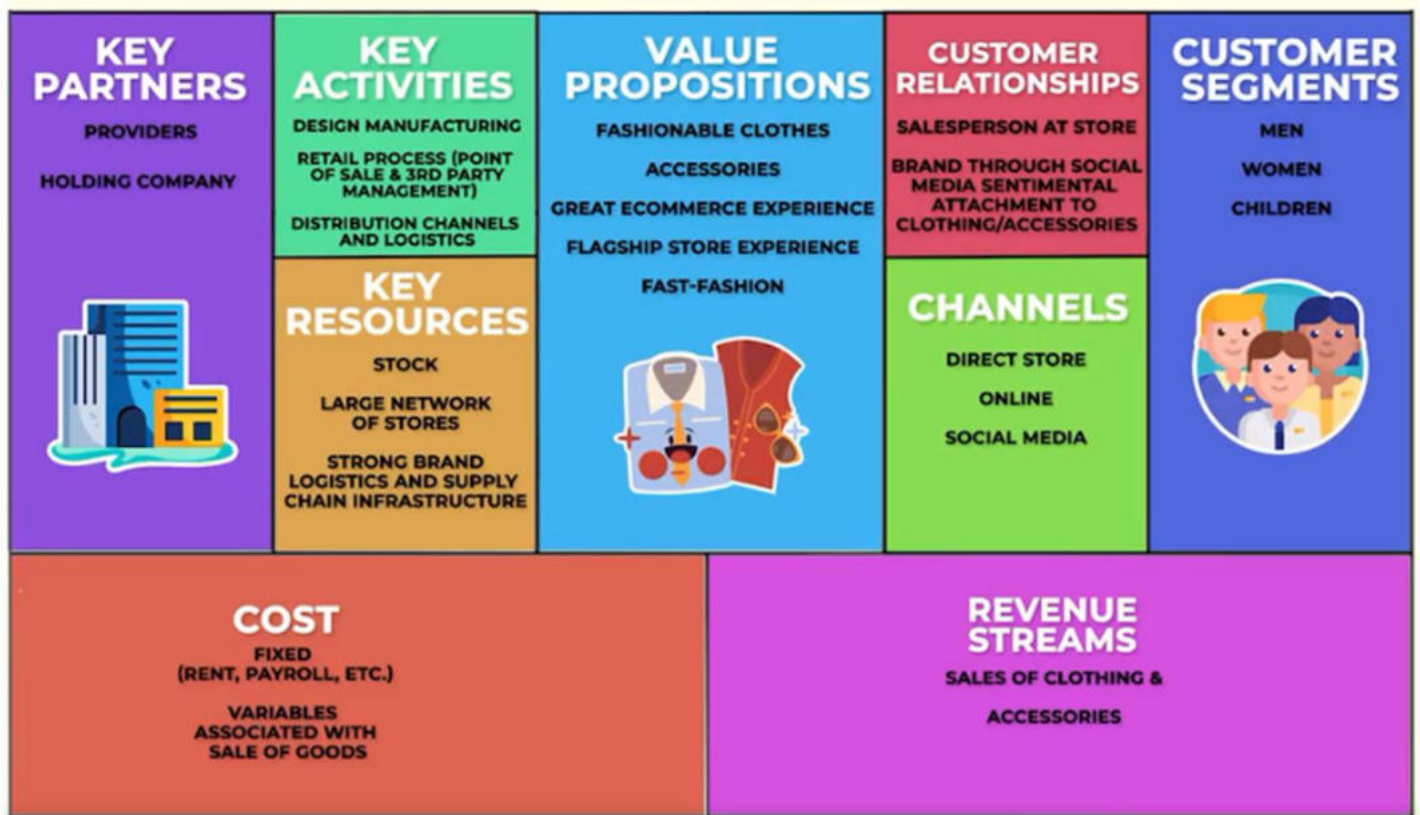
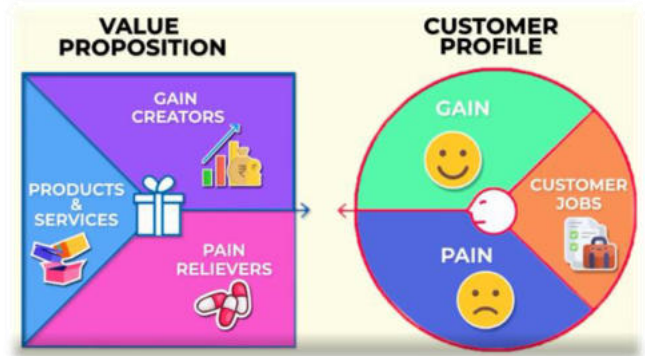
Value Proposition: It is oriented to customer's needs and problems. [Products/ Services business offers to Target Customers that create value].

² Discussed earlier: Industry Structure Analysis | Core Competencies Analysis | Segmentation Analysis

E.g. Canon's value proposition are creating/ capturing memories and keeping records.

This Model helps to design, test, build and manage great customer value propositions.

Value Proposition Map: Business achieve fit btw 2 when one meets the other.



Part 3 - External Environment Context

External Environment

1. Remote Environment

2. Industry Operating Environment [+ Competitive Environment

Element of Remote Environment → S T E E P L E

[Evolution: P E S T to P E S T L E to S T E E P L E]

Social

Technological

Economic

Environmental

Political

Legal

Ethical

Industry Operating Environment

It is analysis of all factors that affect 1. Industry Profitability; & 2. Competitive Position.

1. Industry Profitability [Refer Page.: 1.35]

Michael E Porter - suggests **Five Force Model** to assess the **intensity** of the industry competition.

Competitive Rivalry	Threat of Substitute	Threat of New Entrants	Bargaining Power of Buyers	Bargaining Power of Suppliers Eg: Petrol/ Hospitals.
Intensity/ rivalry will determine the effect on profitability and market share. Stiffer - more firms, more capacity, homogenous products, high FC & exit barriers.	*Increased Cost of Retention or Loss of Revenue. *Cost Leadership/Dif. Strategies.	*Loss of market share if materializes. *Degree of threat depends upon barriers.	*Concentrated/ purchases large volume. *Industry - standardized/ un-diff. *Buyer Full info. & few switching cost.	*Dominated by few Co *Less Competition. *Industry - not an imp. Customer. *Product - imp. Input to buyer. * S. Products - diff. & has built up switching cost.

2. Understanding the customer and markets.

- a. **Markets.** (Physical or Virtual)
- b. **Market Segments** (Homogenous Markets) - Criteria: Homogenous internally; heterogeneous externally; identifiable; size shall be reasonable; responsive in sense.
- c. **Segmentation Analysis:** dividing a broad target customer base or business market into small but more defined.
- d. **Basis of Segmentation:** Product; Demographic; Psychographic; Behavioral; Geographic.

3. Basis of Competition:

- a. **Competition:** Natural [Survival of Fittest - weaker will exit] or Strategic [deployment of resources base on high degree of insight of a business system].
- b. **Basis:** reason why customers of particular business choose it over its competitor.

After analyzing Competitive forces in particular industry and determining the basis of competition in the market wherein business operates, it can easily identify KSF.

4. Industry KSF

Availability of resources and Core Competencies pertaining to CSFs and strategic use of thereof can really help org. to outperform its peer in target market.

- KPI attached to CSFs is used to measure the performance of business org. regarding those CSF.

5. Core Competencies Analysis

Unique proposition which helps firm to stand ahead in industry by serving value to its customers.

Test of CC [Parameters]

1. Relevance: strongly influences customer.
2. Difficulty of Imitation
3. Breadth of Application: open to potential market not small or niche market.

Part 4 - IT- Strategic Context

IT [Info. Technology] collectively with IS [Info. mgt.] and IM [Info. Mgt.] has potential to transform the business around the corners.

Michael J Earl - developed a framework to analyze the linkages and differences btw 3 interrelated types of strategy

Basis	IS Strategy	IT Strategy	IM Strategy
Resolve (scope)	What	How	Where
Driven Force	Business Driven	Technology Driven	Management Driven
Directional	Top-Down	Bottom-up	Multi -Dimensional
Orientation	Demand Oriented	Supply	Relationship
Org. level	Division/ SBU/ Function based	Activity Based	Organization Wide

Analysis of Impact of IS and IT can be done using Value Chain and Porter's Five Force Model. [Ref.: 1.45 & 1.48]

Part 5 - Role of Management Accountant as a Leader (Refer Pg. No. 1.51 - 1.57)

Chapter 2 - Modern Business Management

Modern Business Environment [Evolution from Seller's Market to Buyer's Market]

Featured by:

- Competitive Pricing.
- JIT by Supplier.
- Quality Better than customer's expectations.
- Efficient & Effective Performance.

Characterized by:

- Globalization.
- Fierce Competition.
- Global excess capacity.
- New managerial methods.

Quality & Cost of Quality

Quality: 1) Conformance to Specification 2) Ability to satisfy customer expectations 3) Value for money

Cost of Quality [Dr. Joseph M. Juran]	Cost of Good Quality	<u>Prevention Cost:</u> preventing the poor quality of Products/ serv.	Before Prod.	Engineering/ Training/ Review/ Quality Audits/ Field Trials.
		<u>Appraisal Cost:</u> measuring and monitoring activities related to Quality	During Prod.	Inspections/ Supplier Verification/ Outside Certification/ Field Testing
	Cost of Poor Quality	<u>Internal Failure:</u> deficiencies may by error or inefficiencies.	After Prod. Before Sale	Rework/ Scrap/ Repair/ Retesting/ Downtime.
		<u>External Failure</u>	After Sale	Warranty/ Discount Due to defects./ Cost of recalls/ Repaid/ Lost Market Share
Total Quality Cost	Cost of Control [Prevention Cost + Appraisal Cost] + Cost of Failure of Control [Internal Failure Cost + External Failure Cost]			
Calculation methods	Simplest form: In terms of efforts	Better: money terms		Best Approach: % of total Cost
Optimal COQ [Refer PAF Model - Ice berg Model - Pg. No. 2.10]	1. Striving for Zero defects through continuous improvements is not good for the economic interest of the company. 2. There may be an optimum operating level in which the combined costs are at a minimum.			

Total Quality Management

Meaning	Integrated &	Comprehensive System of	Planning & controlling all business functions.
	Embracing principles such as		as employment involvement, continuous improvement at all levels and customer focus

	Collection of related techniques aimed at improved Quality such as	Full documentation of activities	Clear goal settings	Performance measurement from the customer perspective		
6 C's of TQM	Commitment	Culture	Continuous Improvement	Co-operation [TEI]	Customer Focus [Int + Ext]	Control
W. Edward Deming [Father of Quality Control]	14 Points methodology on quality <i>→ PDCA</i> React short term action to long term plans. Reduce variation & dependence on inspection. Institute leadership rather than supervision. Training on Job Breakdown barriers btw departments Single supplier for one item Institute education and self-improvement Transformation of everyone's job				Plan Dependency Leadership Training Barriers Vendor Education All	
PDCA Cycle [Deming Wheel]	- Plan - Do - Act - Check	- Establish objectives and develop action plans - Implement the process planned. - Take Corrective actions - Measure effectiveness of new process.	These are the activities Co. need to perform in order to incorporate Continuous Improvements			

Some Strategic Decisions - Managing Cost	
Gain Sharing Arrangements	Review and adjustment of an existing contract or series of contracts, where it provides benefits to both parties.
Downsizing [Not rightsizing]	Strategic HR mgt. decision - ensures survival or maintains profitability. 3 Common strategies: Workforce reduction, work redesign and systemic strategy.
Outsourcing	Transferring non-core business functions or activities to other external firms or org. that specialized in the type of work. [BPO/ Job-Work] Improve productivity, quality, reduces cost of operations, flexibility.
Offshoring	Process of moving or relocating an org.'s business or functions to another country where cost of running is lower or cheaper than in the home country.

Supply Chain Management					
Complete chain of serving customers or consumers. It comprises Vendors, Producers, warehouses and retailers. It includes					
Production Planning	Purchasing	Material Mgt.	Distribution	Customer Service	Forecasting
GSCF Framework [Global Supply Chain Forum]	Eight SCM processes are included in the GSCF Framework: Mgt. of				
	Customer Relationship	Supplier Relationship	Customer Service	Demand	
	Order Fulfillment	Manufacturing Flow	Prod. Dev. & Commercial.	Returns	
Models	Push	Stocks - production - anticipated demand.			

	Model	Data - need to be accurate. Products - higher gestation period. E.g. FMCG
	Pull Model	Stocks - production - actual demand . [No demand constraint] reduced inventory Cost -JIT. Marketing Cost - lower Customized. E.g.: Airline.
Upstream SCM		<ol style="list-style-type: none"> <u>Relationship with suppliers</u> Supplier's capabilities of innovation, quality, reliability and agility to reduce risk factors - gives greater value to our business. <u>Use of Technology</u>[Main activities of Upstream SC-Procurement and logistics] <ol style="list-style-type: none"> E-Procurement: [reduce cost, time, quick ordering, best supplier selection.] Begin - identification of org.'s requirement and ends on payment <ol style="list-style-type: none"> E-Sourcing E-purchasing. E-Payment.
Downstream SCM		<ol style="list-style-type: none"> <u>Relationship marketing:</u> helps to keep existing customers and attract new customers Helpful staff, Quality service/ product. <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p><u>Six Markets Model:</u> Market domain where org. may consider directing marketing activities.</p> <ol style="list-style-type: none"> Internal Markets: Internal Dept. and Staff [customer oriented corporate culture] Referral Markets: Existing Customers & Referral Sources. Influence Markets: Digital marketing [Push Marketing]. Recruitment's Markets: required skills[Focal point for relationship marketing] Suppliers Market: Suppliers + Strategic alliances. Customer's Market: Existing + prospective + Intermediaries. </div> <u>Customer's relationship Mgt.:</u> <ol style="list-style-type: none"> Analysis of Customers and their behavior. Customer Account profitability. <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p><u>Process of CAP Improvement</u> [E.g. Banks] - <u>Technique of Activity Based Costing.</u></p> <ol style="list-style-type: none"> Analyze customer base and split it into the segments. Calculate annual revenues earned from the customer. Calculate annual costs of serving the segment [major problem in CAP analysis] Identify and retain quality customers. [Loyalty] Re-engineer/ eliminate unprofitable segments. </div> <ol style="list-style-type: none"> Customer's Lifetime Value: Present value of Net profit - entire lifetime of RI. Customer's selection, acquisition, retention and extension [Re-sell/ Cross Sell/ Up-sell]. <u>Use of Technology</u> <ol style="list-style-type: none"> E-Business E-mails. <u>Brand Strategies:</u> It looks appealing to customers.
Service Level Agreements: Agreement btw customer and service provider.[From services to termination]		

Lean System [universal incarnation of Total Production System]

Waste Minimization & Optimizing work flow.

Father of Total Production System - **Taiichi Ohno** - 7 Waste: [TIMWOOD] Transportation/ Inventory/ Motion/ Waiting/ Over Production/ Over Processing/ Defects

*****Some techniques that advance lean thinking:

1) Kaizen Costing 'Kaizen' - Continuous Improvement

Cost reduction - small, continuous & incremental improvement.
Kaizen Goals are set based upon actual results from prior periods.

Process	Establishing Cost Reduction Goal (Kaizen Cost Target)	Product Feature Changes
[3 Steps]	Ascertain Gap	Manufacturing Process Changes
	Formulate & implement Cost Reduction Plan based on VCA	Kaizen Team Activities.

Just Refer Text → Premises of Kaizen Practice Core Principles Standard Costing V/s KC

2) JIT - Production | Inventory | Purchase | Support.

JIT Purchase initiatives:

1. Receive materials/ spares - when required.
2. Straight delivery to prod. Floor.
3. Inspection - supplier's process.
4. Installation of EDI System.
5. Dropping off products at specific machine using it first.

JIT Production Initiatives:

1. Shorten the setup times. [video tapes]
 2. Training employees - perform limited maintenance.
 3. Streamline flow of parts from machine to machine - eliminating the need for long production Run.
- Solutions: [not mutually exclusive]

Kanban Card:

Notification Card that a downstream machine sends to each machine that feeds it parts, authorizing the just enough components to fulfill the production req. being authorized in turn by next machine further downstream.

Cellular Manufacturing:

Group machines into working cells run by single machine operator. This will reduce WIP inventory and defective parts.

Pros - Meeting customer demand in time | High Quality Products | Lowest possible total cost.

Cons - Difficulty to predict demand patterns | Out of stock - disruption of SC.

Impact - Reduction & control of Waste | Overhead Cost - reduction | Competitive Pricing.

Pre-requisites - low variety of goods | narrow supplier base | Efficient IS | Predictable Demand pattern| TQM | Defect Free materials | Preventive maintenance.

Back - Flushing in a JIT System

Find total production completed in a month; Calculate RM required per production unit = Total RM supplied for production. Problems: [it should be corrected - then it will work properly]

Production reporting | Scrap Reporting | Lot Tracing | Inventory Accuracy

3) 5S Phases



1. Sort (Seiri) - Materials
 *Not needed at all
 *Needed but not now
 *Needed but not here
 *Needed but not so much qty.

It can be Visual aided - tagging [helps unskilled/ workers with limited technical knowledge.
 Red Tag - unwanted items.
 Yellow Tag - Needed items.

It endorses Lean thinking by sorting: Obsolete items, defective items.

4. Standardize (Seiketsu)
 - SOP (best practices)
 - SMART Standards. (Specific, Measurable, achievable, relevant, Time-bound)

2. Set in Order - Systematic arrangement.
 - Place for everything.
 - Search free and count free arrangement
 - eliminate motion waste
 - Faster retrieval.

3.Shine (Seiso)
 - Cleanliness 'in and of' everything.
 -ensuring safety.
 - it includes inspection of machines, tools.

5.Sustain (Shitsuke)
 Daily Monitoring/ Periodic Audits.
 Ownership for works.
 Red Tag Campaign.
 Structured Comm.
 Continuous Training. (SOP updating)/ Mot.

It is the foundation of TPM (even all lean practices that eventually led to TQM).

4) Total Productive Maintenance

TPM Goals → Zero Defects, Zero Breakdown, Zero Accidents

Phases → Preparation, Introduction, Implementation and institutionalizing.

8 Pillars



Techniques of Implementing 8 pillars

*Kaizen Register *Kaizen Summary Sheet	*Cleaning. *Lubricating *Visual Inspection	*Root Cause, Customer data analysis	*Preventive, breakdown, corrective mainte.,	*Engineering, Reengineering Processes	*Training Calendar, On-site Training.	*Drama Slogans, Posters	*Analyzing processes & procedures- Office Automat.
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<p>*Proactive *Increase capacity.</p>	<p>Define the project goals and customer deliverables. Measure and determine customer needs and specifications. Analyze the process options to meet the customer needs. Design (detailed) the process to meet the customer needs. Verify the design performance and ability to meet customer needs.</p>
<p>Limitations</p>	<p>*Focus - specific type of process only/ on Quality only; * Real time barrier to apply</p>

Process Innovation

Implementation of New or significantly improved production or delivery method.
Areas: Production → Delivery → Support Service.



SCPM: Chapter 4: Specialized Cost Management Techniques

Target Costing [Opposite to Cost Plus Profit] [Value Engineering and Value Analysis]

Meaning	Structured Approach to determining 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.				
*It is a process that occurs in a competitive environment, it considers the price that a consumer will pay. *Promoting Product and process innovations. *Proactive - Market Driven - Customer Focused. *Cost Reduction [Important Component of profitability]					
Steps	Re-Orient Culture of Thinking and Attitude		Identify the market req.	Establish the market driven target price.	Determine the volume of product
	Establish the target profit margin		Determine the target cost	Establish balance btw target cost and req.	Establish the Target Costing Process
	Brainstorm and analyze the alt.	Establish product cost models	Use tools for closing Gaps	Reduce indirect Cost Appl.	Measure results and maintain Mgt. focus
6 Principles	<ol style="list-style-type: none"> 1. Leadership of Target Selling Price. 2. Focusing on Customer. 3. Using and Developing Teamwork. 			<ol style="list-style-type: none"> 4. Reduce the cost of the product life cycle. 5. Focus on the Stage of Product Design. 6. Attention to all stages of the Value Chain. 	
Application	Assembly oriented industry Apparel Industry Construction Industry			Heavy diversification in product lines. FMCG Smart Phone Industry	

Life Cycle Costing

Product Life Cycle - Four Phases & its Characteristics

Characteristics	Introduction	Growth	Maturity	Decline
Objectives	Create product awareness & trials	Maximize market share	Maximize profit - sustaining the share	Reduce exp. & milk the brand
Sales	Low Sales	Rapidly Rising	Peak Sales	Declining Sales
Cost per customer	High Cost	Average	Low	Low
Profits	Negative or Low	Rising Profits	High Profits	Decline Profits
Competitors	Few	Growing No.	Steady No.	Declining No.
Strategies				
Product	Offer basic product	Offer product extensions, services, warranty	Diversify brands and models	Phase out weak items
Price	Cost plus profits	Price to penetrate	price to match or	Price Cutting

		market	beat comp.	
Distribution	Build Selective dist.	Build Intensive	More Intensive	Go Selective phase out-
Sales Promotion	Heavy	Reduce to take advantage of heavy demand	Increase to encourage brand switching	Reduce to minimal level
Connection with BCG	Question Mark	Star	Cash Cow	Dog
Uses of PLC	Planning Tool Strategies based on stage	Control Tool Measure performance	Forecasting Tool Less useful - diverse patterns	
PLC Costing	It aims to maximize the profit that a product is able to generate over its life, using the strategies which are the best complement to the features of stages of the LC.			

Theory of Constraints [Goldratt and Core]

Determining what prevents throughput being higher by distinguishing **bottlenecks** and **non-bottleneck** resources. It is focused on revenue and cost management when faced with bottlenecks.

3 Key Measures:	Throughput	Investment	Operating Expenses
Measures	Incoming Money	Money tied-up within the system	Money leaving the system
Objective of Mgt.	Increase	Minimum	Decrease

Five Step method to improve performance	Identify the constraints	Exploit the Constraints	Subordinate & Synchronize the constraint	Elevate the performance of the Constraints	Repeat the process
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Throughput Accounting
Created by **David Galloway** and **David Waldron** from the theory of constraints.
Ratio: Throughput per Bottleneck Minute / Factory Cost per Bottleneck Minute.

Environmental Management Accounting [EMA]

Process of collection and analysis of **environmental cost** for internal decision making.

Area of Application: Product Pricing | Budgeting | Investment Appraisal | Calculating Costs | Savings of Environmental Project.

Environmental Costs
Costs connected with the actual or potential deterioration of natural assets due to economic activities.

4 Types of Classification of Environmental Cost (Refer SM for E.g.)	Generic	US EPA	Hansen and Mendoza	UN Division for Sustainable Devel.
	*Internal *External	*Conventional *Potentially Hidden	*Prevention *Appraisal	*to Protect the environment

		*Contingent *Relationship & Corporate Image	*Internal Failure *External Failure	*Costs of wasted material, capital and labor.
Steps to manage Environmental Cost	Identification	Allocation to Cost Centre & Cost Units		Controlling
	<u>Techniques for identification and Allocation:</u> <ol style="list-style-type: none"> 1. Input-Output Analysis 2. Activity Based Costing 3. Flow Cost Accounting 4. Life Cycle Costing. 			<u>Elements to Control</u> Waste Consumption Water Energy Transport & Travel Consumable & Raw Materials

Part I

Part II

Part III

Changing business Environment →	Emerging Business Model	← Strategic Response
<ul style="list-style-type: none"> *Digital Technologies *Business Ecosystem *Hyper Competition *Transportation and disruption *Advanced Manufacturing *Lean Start-up *Agile Organisation. *Start-ups Vs Incumbents *Intrapreneurship *Innovation Hubs and Incubators *Supply Chain Partnership 	<ul style="list-style-type: none"> *Hyper Disruptive *Models relevant to sustainability *Models Relevant Emerging National Markets 	<ul style="list-style-type: none"> *Value Bases Strategy (Value Capture Model) *Focus on Series of Short Term Advantages - Hyper Competition. *Strategic Responses to Transformations & disruptions (Refer SM: Just Read - 5.39)

Part I

Digital Technologies	1. Internet of Things		2. Robotics		3. Artificial Intelligence	
	4. Automation	Basic - BPM-RPA	Process	Integration	AI	
	5. Cloud - SaaS/ PaaS/ IaaS/ BaaS/ XaaS [Cloud Computing]				6. Autonomous Vehicles	
	7. 3D Printing [Additive Manufacturing]			Extrusion Techniques - FDM - FFF		
	8. Digital Twin	9. Augmented Reality	10. Mobile Internet	11. Block-chain		

Business Ecosystem	Network of Org.'s that are involved in the delivery of a specific products or service through both competition and cooperation. [Co-existence and Co-evolution of Org.'s]	
Ecosystem Framework	<ul style="list-style-type: none"> *Identification of Stakeholders *Value Creation and capture *Positioning and Role Definition *Assessment of Dependencies & Influences (Critical for Risk Mgt.) 	<ul style="list-style-type: none"> *Collaboration and Competition Balance. *Adaptability and Evolution *Governance and Leadership *Sustainability and long term perception.
Designing	Mutually exclusive Flywheels Org. should focus while designing the Ecosystem. <ol style="list-style-type: none"> 1. Learning Flywheel - richer data - better insights. [helps - Innovation - Adaptation] 2. Network/ Growth Flywheel - inc. value proposition[increase efficiencies and synergies] 3. Cost Flywheel - Investments within ES [Reinvestment - optimize resource allocation] 	

Hyper Competition	Intense competition which creates instability in the market. Characteristics are:				
	Rapid Technology Changes	Short Product Life Cycle	Aggressive competitive moves	Continuous Disruption	Diverse Competition
	Market Saturation	More Customer Expectations	Continuous Learning & Adaptation	Strategic Flexibility	Globalization
Strategies	7S Framework to remain competitive through a series of initiatives delivering temporary advantages. [D'Aveni]				
	Stakeholders satisfaction		Surprise		Simultaneous and sequential Thrust
	Strategic Soothsaying		Signals		
	Speed		Shifting the rules of Market		

Trans-formation	Shift	Innovation shifts the basis of competition.			
	Types	Digital	Org.	Business Model	Operational
			Cultural	Sustainability	Strategic
Disruption	Disruptive Org.	Org. introduces disruption.			
	Disruptive Innovation	Process of transforming expensive or highly sophisticated product, offerings or services into one that is simple, more affordable and accessible to a broader population.			
	Components:	Enabling Technology Coherent Value Network Disruptive or Innovative Business Model.			
	Types [Clayton Chirstensen]	Low-End Disruption		New-Market Disruption	
Co. uses low cost BM to enter at the bottom of an existing market		New entrants expand the market by targeting customers who have never used a similar product before.			

Advanced Manufacturing	Meredith and Hill have classified the AM Technologies. <u>Basis of classification:</u> level of Integration	Stand-alone	Robots or Numeric Controlled (NC) Machine Tools
		Cells	*Group of equipment and materials - using GT and CAM. *FIMS
		Linked Islands	Cells from level 2 integrated using CAD/ CAM, automated storage and retrieval system, JIT, MRP II
		Full Integration	Linkage of entire manufacturing function and all its interfaces through an extensive info. network. [CIM]

Lean Startup e.g. Drop-Box	<ul style="list-style-type: none"> - It offers a framework for startups to test, learn and adjust their strategy through a cycle of continuous improvement. - Eric Ries explains how lean startup help entrepreneurs to navigate extreme uncertainties by testing scientific hypothesis with a Minimal Viable Product (MVP). <p>Build - Measure - Learn feedback loop is a key component of Lean Startup Methodology. [Iterative process]</p> <ol style="list-style-type: none"> 1. First Step - Identify the problem that needs to be solved and then create MVP to begin learning process. 2. Measure - Gather Data - Key metrics. 3. Learn - Analyze the Data gather in measure stage, then decides to pivot or preserve.
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Agile Org. (Living Org)	Customer Centric Empower Agile Team structure - Collaboration and Transparency Cross Functional Teams Continuous Improvements Responsive Leadership Iterative Work Processes Value driven Delivery Embracing Technology Shared Goals and Vision.
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Design Thinking → Lean Start Up → Agile → Six Sigma

Startup V/s Incumbents	Differences → Refer SM 5.22 - 5.24 Stages of Startups - 3 Stages. <ol style="list-style-type: none"> 1. Seed Stage - Customer/ Problems/ Solution. [Problem-Solution Fit Stage] 2. Early Stage - Development of Full scale Business Model. [Product Market FIT Stage] 3. Growth/ Scale-up Stage [Scale Fit Stage]
-------------------------------	---

Intrapreneurship	Innovation Hubs & Incubators	Supply Chain Partnership or Collaboration
Entrepreneurship within an existing business. It is a restorative action taken to counter stagnation within a larger organization.	<u>Innovation Hubs:</u> Spaces & programs designed to foster innovation, particularly in the field of technology, entrepreneurship and business development. <u>Incubators:</u> Focus on early stage startups that do not have a BM.	<u>Approaches to SC Innovations (evolved in response to customer needs & desires):</u> <ol style="list-style-type: none"> 1. Rapid SC - focus on speed & efficiency. 2. Agile SC - emphasizes co.'s ability to respond to changes in demand. 3. Lean SC - prioritizes waster elimination.
6 Steps to successful SC Collaboration	*Define the business opportunity & align on mutual objectives. *Select the right partners & establish trusts. *Develop a joint value proposition & business case.	*Agree on roles, responsibilities & governance. *Implement the collaboration plan & monitor performance * Capture & Share Learning, scale up the business

Part II - Emerging Business Models

Hyper Disruptive Business Models	<p>*It will prioritize creation, disintermediation, refinement or re-engineering of a product or service. Co. which uses this BM has a distinct competitive advantage. *They will crush all of their competitors and stay on the top of the industry.</p>		
Different Types	<p>Free Model [1.1] Core product is distributed for free to a large no. of users. Premium products to a smaller subset of users who desire premium features.</p>	<p>Subscription Model Pay recurring fees to gain access to the service. E.g. Newspapers, Netflix. <u>Variants:</u> Content Subs.; Service Subs; Product Subs.; Membership Sub.</p>	<p>Freemium [Free + Premium; Risk Free Trial] E.g. Adobe Reader; LinkedIn; Spotify; <u>Applications:</u> Software and Apps; Online Games.</p>
	<p>E-commerce Model Flexibility and Convenience. B2B/ B2C/ C2C/ C2B. Amazon Wholesale/ Amazon/ OLX/ Naukri.com</p>	<p>Hypermarket Model Large Co. use their economies of scale to offer competitive prices. E.g. Reliance Retails</p>	<p>Access over ownership Temporary access to goods or services. e.g. Uber</p>
	<p>Service Ecosystem Model Offer diff. products, they will be integrated. [Lock system - limits competition/ Cross-sell/ Up sell opp.] E.g. Apple/ Banks.</p>	<p>Experience Model Adding an experience component to a product or service that elevates its value to the customer. e.g. Rolls Royce Cars</p>	<p>On Demand Model At monetization stage - it is disruptive. Charge premium for instant access. E.g. Uber; Blinkit Grocery in minutes.</p>
1.1 Free Model	<p>Advertising (Hidden Revenue) Model Advertisers pay the org. for access to its audience.</p>	<p>Cross-Subsidization (Razor Blade Model) Provides a free product or service to customers in order to drive high margin sales of a complementary product.</p>	<p>Open Source (Free Access or Gift) Model BM around Open Sources are: *Support and services *Dual licensing *Complementary Products. E.g. Tally</p>
Models relevant to Sustainability	<p>9 different approaches presented by Idil Gaziulusory and Twomey, which are used in developing BM that are relevant for creating greater sustainability. (Refer SM 5.36)</p>		
	<p>Product Service System</p>	<p>Open Innovation</p>	<p>Peer-to-peer Innovation</p>
	<p>Closed-loop production</p>	<p>Crowd-funding</p>	<p>Sharing Economy</p>
	<p>Social Enterp. and benefit corp.</p>	<p>Gift Economy (extreme form of sharing economy)</p>	<p>New manufacturing paradigm</p>

Decision Making(DM) Techniques - classification		
Based upon Time Horizon	1. Long Term Decision Making [DCF] 2. Short Term Decision Making [Contribution] →	<u>About Short Term DM:</u> *Ignore Time Value of Money
Based upon Nature	1. Making decisions with limited or scare resources 2. Considering Risk and Uncertainty	*Fixed Costs - irrelevant cost. <u>3 Methods:</u> [Considers impact on the total Consideration] ↓
CVP Analysis	Key Factor Analysis	Linear Programming

Concepts covering in this chapter:

1. CVP Analysis and Decision Making Models. [Part I]
2. Pricing Decisions and Pricing Strategies. [Part II]

Part I A - CVP Analysis

1.1 Conventional CVP Analysis	*Analyses interrelationships among revenues, costs, level of activity and profits. *Cost Driver - Volume of Production. * Cost categorized as Fixed and Variable. *Break Even Analysis - used for Decision Making		
1.2 CVP Analysis + Activity Based Analysis.	Org.'s Activity based on ABC	Timing of Activity performed	Cost Driver
	1. Unit Level(Output) Activities E.g. Direct Material Cost, DLC..	When each product is manufactured	Volume of production
	2. Batch Level Activities E.g. Set up Act. Or Material Procurement	Activities are done for a batch of production	No. of Set-ups
	3. Product Sustaining Activities e.g. Drawing Process Chart	Support production or sales	Need to perform additional task.
4. Facilities Level Activities E.g. Rent on Machinery, Dep.	General Operations of business	Increasing Capacity.	
Break Even Analysis under 2 Approaches	Conventional Method: BE (units) = $\frac{\text{Fixed Cost p. u.}}{\text{Contribution p. u.}}$	Under CVP + ABC: BE (units) = $\frac{[\text{Fixed Cost under ABC} + (\text{Batch level Cost Driver} * \text{Cost per Batch Driver}) + (\text{Product Sustaining Cost Driver} * \text{Cost per Product Sustaining CD})]}{\text{Contribution p. u.}}$	
1.3 CVP Analysis in Service and NGO	In order to use CVP analysis by Service and NGO's, we need to focus on measuring the output . [Concepts applied in Service Costing - Intermediate]		
1.4 CVP in JIT Environment	*Direct Labor - Fixed Cost *Batch level variable absent in JIT [batch = 1 unit] *Unit Level variable cost exists.	<u>Cost Equation:</u> Total Cost [JIT] = Fixed cost + (Unit Variable Cost * No. of Units) + (Engineering Cost * No. of Engineering Hours)	

Part I B - Decision Making Models

Decision Making Models	General Approach to tactical decision making: Steps					
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
	Define the problem	Identify alternatives, eliminate unfeasible	Identify costs & benefit of each alternatives	Examine total relevant costs and benefits of each alternatives	Assess non-financial factors and ethical issues	Select alternative with greatest overall benefit.
Relevant Cost	Features of Relevant Cost (Relevant to a decision): a. Future Cost. b. Differential Cost.				The ability to identify relevant and irrelevant costs is a vital decision-making skill.	
Non-Financial Factors in DM	It is long term focused and ensures profitability and sustainability in the long term for an org. thereby evaluating the internal performance of the co. E.g. Quality, Employee Satisfaction, CSR, IP, IA, Brand Name. Limitations: Time and Cost involved; Subjective measurement, Lack of statistical relia.					
Ethical Considerations in DM	Firms with a strong code of ethics can create strong customer and employee loyalty. A firm that values people more than profits and is viewed as operating with integrity and honor is more likely to be a commercially successful businesses. E.g. boCHETEA.					
Some Short Run Decisions	1.1 Outsourcing	1.2 Sell or Process	1.3 Minimum Pricing	1.4 Keep or Drop	1.5 Special Order	1.6 Product Mix
1.1 Outsourcing Decision	<p>*Make or Buy Decision.</p> <p><u>Benefits:</u> Reduce Costs & benefit from supplier Efficiencies</p>			<p><u>Decision:</u> Incremental Cost Savings + Opportunity Costs > Incremental Cost [Relevant cost]</p> <p>**Unless qualitative factors fiercely impact the decision.</p> <p style="text-align: center;">↓</p>		
	<p><u>Qualitative Factors:</u> *Cost Savings *Investment Returns *Managerial Bandwidth *Skilled Manpower *Concerns * Seasonal Demand *Confidentiality and Patents *Infrastructure and Transport. * Risk of Obsolescence.</p>					
1.2 Sell or Process	<ul style="list-style-type: none"> Usually used in the case of Joint Products. <u>Relevant Cost:</u> Incremental Cost and Revenue of the further process. [Joint Process Cost - Sunk Cost.] <u>Qualitative Factors</u> - Need to consider. E, g, Resource Availability. 					
1.3 Minimum Pricing	*Useful when there is a lot of intense competition, surplus production capacity, clearance of surplus production, clearance of old inventories. [Total relevant Cost of Manufacturing] = Incremental Cost of Manufacturing + Opportunity Costs.					
1.4 Keep or Drop	<ul style="list-style-type: none"> Related to unprofitable segments. Drop → Incremental Cost Savings > Incremental Revenue Lost, **unless qualitative factors fiercely impact the decision. [Opp. Cost - common in both.] 					

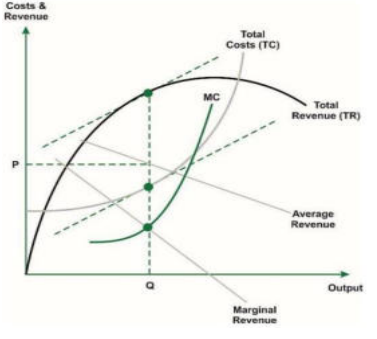


1.5 Special Order	<ul style="list-style-type: none"> Whether to accept or reject orders that come with a unique pricing request, often lower than usual. [It is attractive when firm operating below its maximum production capacity] Accept → Incremental Revenue > Incremental Cost [VC + Add. FC], **unless qualitative factors fiercely impact the decision. 		
1.6 Product Mix [Limiting Factor Impact]	Steps: 1. Calculate Contribution Margin P. U. 2. Determine the Limiting Factor's impact.		3. Compute Contribution Margin per Limiting Factor Unit. 4. Make Decision.
Workout: Illustration 4 to 9.			

Part II - Pricing Policy, Pricing Decisions & Pricing Strategies

Pricing Policy	Pricing Decisions	Decision of determining prices influenced by pricing policies followed by an org.	
	Pricing Strategies	Processes and methodologies businesses use to set prices for their products and services.	
Pricing Decisions - External Pricing	Factors affecting	Internal	Related to task environment of the firm. e.g. Co. Obj.; Stage of product in LC; intensity of Comp.;
		External	Related to the macro-economics of the firm. e.g. Market Composition; Buyer's attitude; Govt. controls & reg

Theory & Principles of Product Pricing - Microeconomic Concepts

1.1 Profit Maximization Model	<p>*Optimum Price: Price that yields the maximum profit.</p> <p>*Profit is Maximum at level of output where MR = MC. MR= Increase in Total Revenue from sale of add. 1 unit MC= Increase in Total Cost from sale of add. 1 unit.</p> <p>*Q - Equilibrium Volume - Gap btw TC and TR Line Max. (MC =MR)</p>			
	Basic Price Equation (where profit is maximum) $P = a - bQ$ MR Equation $MR = P = a - 2bQ$	P = Price b = Change in price/ Changein Qty. Q = Qty demanded. a = price at which Demand is Zero.		
1.2 Pricing under diff. Markets	Perfect Competition	Monopoly	Monopolistic Comp.	Oligopoly
	*Large No. of sellers.	*Only one seller	*Large no. of	* Few number of

	* identical sellers *homogenous Product/ service. *Free Entry/ Exit	and no substitute. * Firm is price setter e.g. Microsoft Window	sellers selling similar but not identical P/S. e.g. Mobile Indust.	seller selling identical P/S. E.g. Telkom Industry
	No Pricing Policy [Market Price]	Any Price [Premium Price]	Market Price or Below Market Price	*Predatory Price *Limit Price *Raise Price Together
	<u>Non-Price Strategies</u> - Oligoploists: *Advetisement, product placement and sponsorships *Improve quality and after sales service. *Sales Promotion *Loyalty Scheme			
1.3 Principles of Pricing	Important determinants of price are competitive situations prevailing in the market and elasticities. Important points to be kept in minf to arrive at a right price:			
	1. Price Customization. (Based on)			
	Product Line	Customer past behavior	Demographics	Time Differential
	2. Price Sentivity (tracks both nature of product and buyer's behavior)			
	Unique Value	Low	Difficult Comparison	Low
	Shared Cost	Low	Price Outlays	Low
	Price Quality	Low	End Benefit	Low
	Total Exp.	Low	Sunk Investment	Low
	Inventory	Low	Substitutue Awareness	High
1.4 Structured Approach to PD	Step 1	Setting Pricing Objectives.	Step 5	Analyse competitors
	Step 2	Understand Demand Elasticity	Step 6	Select a pricing Method
	Step 3	Estimate Costs	Step 7	Select the Final Price
	Step 4	Assess Customer Demand	Step 8	Review and Adjust
Pricing Decisions - External Pricing [Internal - Transfer Pricing - Discuss later]				
1.1 Pricing of New Product	Revolutionary Product	New for the market and potential to create its own value		Premium Pricing
	Evolutionary Product	Ugraded Version with a few additional charateristics		Demand Based Pricing
	Me-too Product	Price takers - market followers		Market Price
	Pricing Strategies	Skimming Pricing (High -early; reduces later) *Early demand inelasticity. *Skimming the cream *Covering initial costs *Financing high prod. & mar. cost		Penetrating Pricing - not predatory (Low Price -attract large no) *Initial Losses for future. (EC) *Market Expansion. *Long Term Strategy *Discourage Competition.



1.2 Pricing of Existing FG	1.2.1 Cost Based Pricing									
	<ul style="list-style-type: none"> * Full Cost of the product at current level output and wage levels. * Selling Price = Total Cost + *Desired Profit. *Desired Profit - 2 Ways: <ol style="list-style-type: none"> 1. Mark up - Pricing: Adding standard mark-up to the production cost. used when cost are known, demand can't known accurately. 2. Target Rate of Return: Invested Capital*Desired ROR. Used when estimated sales, demand, units cost are known; less competitive enviro. 									
	1.2.2 Competition Based Pricing									
1.3 Pricing of Service.	1. Going Rate Pricing: Keep price at average level charged by industry.									
	2. Sealed Bid Pricing: Based on bidding, like closed auction.									
	1.2.3 Value Based Pricing									
1.4 Pricing in case of emerging BM (Chapter 5)	1. True Economic Value: Cost of next Best alt. + value of performance differential									
	2. Perceived Value: Value that customer understands the product deliver to it.									
	<p>Classification of Service:[Based on nature of work involved and involvement of receipt]</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 25%;">People Processing Services</td> <td style="width: 25%;">Product/ Possession Processing Service</td> <td style="width: 25%;">Mental Stimulus Processing Service</td> <td style="width: 25%;">Information Processing Service</td> </tr> <tr> <td>Hair Cut</td> <td>Washerman</td> <td>Light Show</td> <td>Consultancy</td> </tr> </table> <p>Pricing determination - Different ways: Collective Manner (Association); Incorporate Intangible Cost as well as tangible costs.</p>			People Processing Services	Product/ Possession Processing Service	Mental Stimulus Processing Service	Information Processing Service	Hair Cut	Washerman	Light Show
People Processing Services	Product/ Possession Processing Service	Mental Stimulus Processing Service	Information Processing Service							
Hair Cut	Washerman	Light Show	Consultancy							
1.5 Sensitivity Analysis in PD	<ul style="list-style-type: none"> • Balancing Act [attractiveness to consumers and need to cover the costs and achieve Financial Goals] • Identifying the poor controls and value leakages. • Opportunity Identification. 		<p>Conducting Sensitivity Analysis:</p> <ol style="list-style-type: none"> 1. Selection of Critical Parameters. 2. Systematic Variation. 3. External Factors. 4. Internal Factors. 							
	1.6 PD in special circumstances	1.6.1 In periods of Recession.								
SP below the total cost but above the marginal cost.										
1.6.1 Pricing below Marginal Cost: Situations [Short Term]										
1.7 Ethical Issues in Pricing	1. Perishable Materials. 2. Excess Inventory. 3. Penetrate Market. 4. Cross Selling Opp.		Competition Law → Prohibits predatory pricing							
	Price Gauging (In emergency situations)		Price Discrimination							
Predatory Pricing		Misleading Pricing								

1.8 Product Life Cycle and Skimming and Penetrating Strategies	Introduction	Growth	Maturity	Decline
	Skimming Policy - Higher Price	Reduce Price to penetrate	Price to match or beat competitor	Cut Price if not repositioning.
	Penetration Policy - higher Market share		Retain higher prices in some market segments	Some increase in prices may occur in late decline stage.

Pricing Strategies

Price Adjustment Strategies	1.1 <u>Geographic Pricing:</u> Pricing on the basis of locations and countries. <u>Strategies:</u> 1. Compensation Deals. 2. Barter. 3. Buy-Back Arrangement. 4. Offset.
	1.2 <u>Discounted Pricing:</u> case of Bulk Purchases and early payments. 1. Distributor's. 2. Quantity. 3. Cash 4. Seasonal Discounts 5. Allowances
	1.3 <u>Promotional Pricing:</u> 1. Longer Payment Terms 2. Special Event Pricing 3. Loss Leader Pricing 4. Cash Rebates. 5. Warranties and Discounts. 6. Psychological Discounting.
	1.4 <u>Price Discrimination:</u> Possibility for PD only if: 1. Market Segment with different sensitivity or demand elasticity 2. Prevention of Arbitrage. 3. Protection from Competition. (from high price segment) Types: 1. Customer 2. Place 3. Product 4. Time.
	1.5 <u>Product Mix Pricing:</u> 1. Product Line Pricing: 2. Optional Feature Pricing: Core - base; additional features-add ons 3. Captive Product Pricing: High Price for ancillary products; low for core. 4. Two-Parts Pricing: Fixed and variable fees. E.g. Park (Entry Fee + Activity Fee) 5. By-Product Pricing: Lower price - main product. 6. Product Bundling Pricing: Pure (deliver in bundle only) and Mixed(bundle or ind.)

KANO's Performance Attributes

Kano Model of product development and customer satisfaction is used for prioritizing the most important features in a product roadmap.

Model defines following attributes of any product or services: [business must include or exclude these]

Include	Threshold Attributes e.g. Touch Screen	Excitement/ Delight e.g. Foldable Mobile	Performance Attribute e.g. Battery Life of Smart Phone
Exclude	Indifferent Qualities e.g. Size	Reverse Qualities e.g. Too much complexity to use	Questionable Similar to reverse quality

Part1	Strategic Analysis of operating Profit
-------	--

Analysis of Operating Income is spread into **three main areas or components**:

1. Growth	Measures the change in the Qty. of output sold.
2. Price Recovery	Measures change in revenue and costs solely due to changes in price.
3. Productivity	measures changes in the OI due to changes in product mix and/ or yield of inputs

Steps: [Uses 'A' -Adverse; 'F' - Favorable]

1.Start with the operating profit from the last yr.	4.Adjust for Productivity Component
2.Adjust for Growth Component	5.Calculate Total Revenue and Costs
3.Adjust for Price Recovery Component	6.Derive the Operating Profit for the Current Yr.

Illustration No.: 1.

Part2	Profitability Analysis through Activity Based Costing
-------	---

ABC: Emphasis on activities and its cost drivers. Useful well in the industries where Direct cost is low and Overhead is not tends to be volume related or capable of easily attributable.

1. Direct Product Profitability:

- It analysis profitability for each product or segment of products separately.
- It is generally used in **retail** trade. → **DPP per unit of time or DPP per unit of time per measure** of spaces. This is automatically built in when OH are spread if a cost each product used this rate multiplied by the volume and the no. of days or weeks in the system.
- Indirect Costs, for DPP may be analyzed into following Cost Categories

Overhead Cost	Not directly linked to a particular product.
Volume related	In relation to the space occupied by products. Includes storage and transportation.
Product Batch	Often a time based Cost. E.g. if identical products handled together-stocked -Labor Time Cost
Inv. Financing	Cost of the product * Interest rate per day or per week.

- Products are ranked based on DPP. **Illus. 2**

2. Customer Profitability Analysis:

- It creates cost pools for activities. [Different customers have different activity profiles]
- Customer profitability profiles can be built up → customers can be charges according to the cost to serve them. E.g. DP Charges - AMC - based on Slabs - customers categorized. **Illus. 3**

Activity Based Costing/ Activity Based Cost Management/ Activity Based Budgeting - **ABC/ABM/ABB**

ABC -
Advanced
Manuf.
Environment

1. Global Competitiveness:
 - ABC supports continuous improvement - new insights into activity performance.
→ By focusing on source of demand for activities and by permitting mgt. to create a behavioral incentive to improve one or more aspects of manufacturing.
2. Workplace Automation: it provides more realistic and accurate product costing.

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ABM	Cost Mgt. application of ABC. It uses cost info. Gathered through ABC.					
	Designing and Implementation of ABM					
	Step 1	Cost Driver Analysis: factor cause change in activity.				
	Step 2	Activity Analysis: Value added V/s Non-Value [Eliminating NVA]				
	Step 3	Performance Analysis: a) based on expected Cost or b) time Spent				
	Measures to Find Value added activities:					
	<ul style="list-style-type: none"> Activity necessary? Is activity efficiently performed? Is an activity sometimes VA and sometimes NVA? 					
	Measuring NVA:					
	<ul style="list-style-type: none"> In manufacturing operation → 5 major activities often cited as wasteful: 					
	Storing	Moving	Waiting	Inspecting	Scheduling	
	JIT	Cellular Manufacturing	JIT Inventory system	TQC and Zero defect manuf.	JIT Manufacturing	
	<ul style="list-style-type: none"> NVA costs should be reported in activity center cost reports. One approach → Identify NVA Activities → classify the ways in which time is spent in a manufacturing process. 					
	Receipt Time	Manufacturing/ Process Time	Manufacturing Cycle Time	Cycle Time	Delivery Time	Customer Response
	<ul style="list-style-type: none"> Apply MCE [Manuf. Cycle Efficiency] in reducing NVA activities. E.g. illus. 4. $MCE = \text{Processing Time} / \text{Manufacturing Cycle Time}$ 					
	<p><u>Interpretation:</u> Perfect MCE = 1. Any NVA Activity results in an MCE of less than 1.</p> <p>Manufacturing Cycle Time = VA + NVA</p> <p>Delivery Cycle Time = Receipt Time + MCT.</p>					
Business Applications of ABM:						
*Cost Reduction*ABB.*Business Process Re-engineering*Benchmarking*Performance Me.						
Implementing ABM						
<ol style="list-style-type: none"> 1. Clarifying Organizational issues and Information requirements 2. Securing Top Management Support. 3. Incorporating ABC into Financial Process. 4. Developing a separate ABC system if integration is challenging 5. Compatibility of IS. 6. End-user representation on the implementation team. 7. Strategic Implementation of ABM. 						
ABC - Determining the cost of activity			ABM - Managing he Cost of Activitiy			



ABB	Core Components of ABB - Activity Flexible Budgeting				
	Type of Work to be performed		Quantity of Work to be performed		Cost of Work to be performed.
	Core Principles:				
	*Activity Centric Planning.		*Detailed Workload Analysis.		*Cost Attribution
Process: [Forward Looking Process]					
<ol style="list-style-type: none"> 1. Start with output. 2. Identify required activities. 3. Budget resources for activities. 					
Part3 Pareto Analysis [Vilfredo Pareto]					
Key Feature	Achieving objectives with scarce set of resources. Vital Few - Trivial Many				
80:20	<ul style="list-style-type: none"> • 80% of the results come from only 20% of effort. It is really useful in defining the top priorities. It can be used as a Management tool for Control Mechanism. • The graphical representation of Pareto analysis → Pareto Chart. 				
How to find Vital few?	Pareto Analysis + other analytical tools such as: Fault Tree Analysis/ Scatter Diagram/ Fishbone Diagrams/ Run Charts.				
Cons	<ul style="list-style-type: none"> • Possibility of exclusion of important problems which may be small initially. • Wrong identification of Causes. • Effectiveness of this analysis is purely based upon the data/ information. 				
Applications of Pareto Analysis	Pricing of a Product	Customer Profitability Analysis	Stock Control	Activity Based Costing	Quality Control
	Can focus on high impact products Delegation of pricing to Low level of mgt.	Identifying the Key Customers. Strategic Decision on CR.	Control of most of the monetary investment in major stocks. (20% stock - 80% in value)	Analyzing, monitoring and controlling 20% of cost drivers responsible for 80% of the total cost.	80% of reported problems - 20% of causes Rectifying 20% - great impact on product quality.



Part1 Linkage of Performance Management & Strategy

Strategy - deliberately choosing a different set of activities to deliver a unique mix of value.

Effectiveness of strategy depends upon the efficiency of strategic planning and control.

Informed decision making is essential for efficient strategic planning and control.

PM helps to take informed decisions [PMS is derived from Org.'s Strategic Objectives]

Tools Used in PMS: [Discussed in later chapters]
 Balanced Scorecard | Performance Pyramid, Building Blocks | Triple Bottom Lines.

Part 2 Role of Performance Management in Business Integration

Business Integration:

all aspects of business in alignment →so obj. can be achieved → by effective implementation of strategies while using available set of resources efficiently.

Frameworks of business Integration:

Business Models → McKinsey's 7S Porter's Value Chain

1. McKinsey's 7S

- a. 7S - Interrelated factors - Constellation - no hierarchy - all areas are equal importance.
- b. Division of 7S:

Hard S	Soft S
Strategy, Structure, System	Style, Staff, Skills and Shared Values
Easily quantified and defined and deal with facts and rules	Relatively difficult for mgt. to change

1. Strategy:

- It is specific to org. to achieve its goals; with available scarce resources.
- Features of Strong Strategy:
 - a. Clearly articulated.
 - b. Long Term Orientation.
 - c. Helps achieve competitive advantage; and
 - d. Reinforced by a strong mission, Vision and values.

2. Structure

- Formal framework → jobs are divided, grouped and coordinated.
- Authority and responsibility is set under structure.
- Coordination and interactions designed by mgt.

1. Style:

- Its way of working of org.
- Combined outcome of style of mgt. adopted by leader, prevailing stories and culture, usage of symbols and practices.
- Leadership Theories: Transactional - transformational; Leadership Types: Autocratic, bureaucratic and democratic.

2. Staffs

- Intellectual capital that create org. and its culture. [Motional & Rational - carry perceptions]
- Most significant factor in executing the



- Features of well-defined org. structure:
 - a. Link individuals in an established network of rela.
 - b. Group together the task - to achieve org. goal.
 - c. Allocate people → suitable individual and groups.
 - d. Allocate Authority → suitable Ind. Or groups.
 - e. Coordination of objectives & activities of separate units.
 - f. Enable the flow → work, info. and other resource.

3. System

- **Processes and daily activities** undertaken by people.
- It is placed around IS as core. System requires processing of data that consume and create knowledge

strategies to achieve organizational goals.

3. Skills.

- **Core Competencies of Org.** and that they working on.
- Org. must analyze skill gap and work on filling it.

4. Shared Values

- **Guiding beliefs** of people in org. as to why it exists.
- Also called '**Superordinate Goals**'.

c. Effective use of 7S framework for BI.

- Step 1: Start with Shared Values → Consistent with Structure, strategy and system? Changes req.?
- Step 2: Then look at Hard elements → how well each supporting? Changes Req.?
- Step 3: Next, look at Soft elements → Do they support hard elements? Changes req.?
- Step 4: Review the Changes.

d. Change Mgt. & Gap Analysis runs parallel with 7S Framework

Change Mgt.	Prepare the Org. for Change Craft a vision and plan for change. Implement the change. Embed changes within Co. culture and prac. Review progress and Analyze results.	Gap Analysis	Understanding the current situation Determining the desired position. Determining the action plan. Execute the action plan. Perform a periodic review.
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2. Porter's Value Chain

- a. Already discussed in Chapter 1.
- b. Using value chain to gain and sustain competitive advantage (Desired performance)
Kaplan and Cooper - suggested different classification of value added scheme: 4 Categories

Activity - classification	Action to improve value
Essential activity can't be improved immediately	None
" " can be improved	Modify the process
Non-essential activities that can be eliminates eventually (not now)	Eventually eliminate
" " eliminated quickly	Immediately eliminate

- c. NVA can be outsourced. VA -? (based on different factors)
- d. Even within Org. → at each stage → next user shall be considered as customer.

Value Chain Analysis or McKinsey's 7S → Business Integration → Performance Management

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2. Strategic PM should detect signs of corporate failure → Preventive and corrective measures.

3. Predicting Corporate Failures: 2 types of Models Used

Quantitative	Assigning a rank or score basis of ratios or values.	Altman Z Score	Beaver's Univariate	The Zeta
		Z - for Pvt. Firms	Taffler and Tishaw's	H Score
Qualitative	Assigns score basis of risk Fa.	Argenti's A Score		

a. **Altman Z Score:** to predict the probability that a firm will go into bankruptcy.

$$Z \text{ Score} = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$$

Wherein,

X_1 = working capital/total assets

X_2 = retained earnings/total assets

X_3 = earnings before interest and tax/total assets

X_4 = market value of equity/total liabilities

X_5 = sales/total assets

1.2, 1.4, 3.3, 0.6, and 1.0 are pre-defined weights (coefficients).

Mind it, there is **no concept of an ideal score**. The computed Z score indicates the likelihood of failure (bankruptcy) as per the table shown below –

Z-Score	Zone of discrimination	Prediction regarding corporate failure (due to bankruptcy)
Less than 1.81	Distress	Companies with a Z score of below 1.81 are in danger and possibly heading towards bankruptcy.
1.81 to 2.99	Grey	Companies with scores 1.81 to 2.99 need further investigation.
More than 2.99	Safe	Companies with a score more than 2.99 are financially sound.

b. **Altman Z Score for Pvt. Firms, Non-Manufacturing, and emerging markets:** [Revised]

$$\text{Revised Z score} = 0.717X_1 + 0.847X_2 + 3.107X_3 + 0.420X_4 + 0.998X_5$$

Wherein,

X_1 = working capital/total assets

X_2 = retained earnings/total assets

X_3 = earnings before interest and tax/total assets

X_4 = book value of equity/total liabilities

X_5 = sales/total assets

But we did not test the Z-Score model on a secondary sample due to a lack of a private firm data base; hence the above revised equation, which was suggested by Altman to be used for private firms, has less utility.

The computed Z score indicates the likelihood of failure (bankruptcy) as per the table shown below–

Z-Score	Zone of discrimination	Prediction regarding corporate failure (due to bankruptcy)
Less than 1.23	Distress	Companies with a Z score of below 1.23 are in danger and possibly heading towards bankruptcy.
1.23 to 2.99	Grey	Companies with scores 1.23 to 2.99 need further investigation.
More than 2.99	Safe	Companies with a score more than 2.99 are financially sound.



Qualitative Models.a. Argenti's A Score:

- i. Process flow of Failure: Defects → Mistakes → Symptoms of Failure
- ii. Defects → Management Defects and Accounting Defects.
- iii. If **Score is > 25**, then the company is likely to fail.

Calculation of A score – Areas and Score

Source of problem	Observed variable	Score
Group A – Defects	Management defects	
	Chief Executive is an autocrat	8
	Chief Executive also holds the position of Chairman	4
	Passive board of directors	2
	Unbalanced board of directors, not representing all business functions, or dominated by directors whose background is in the same business function	2
	Weak Finance Director	2
	Lack of 'management in depth'	1
	Poor response to change: old-fashioned product or service, obsolete production facilities, out of date marketing methods; old directors	15
	Accounting defects	
	No budgets or budgetary controls	3
	No cash flow forecasts, or not up to date	3
	No costing system: costs and contribution of each product or service are not known	3
	Sub Total	43
Group B – Management mistakes	High gearing; inability to service debt	15
	Overtrading: company expanding faster than funding; capital base too small for level of activity; or capital base unbalanced for type and nature of the business	15
	A big project that has gone wrong; any obligation that the company will be unable to meet if something goes wrong	15
	Sub-Total	45
Group C – Symptoms of trouble	Financial analysis appears to indicate failure or difficulties (e.g., poor Z-score)	4
	Creative accounting (e.g., gaming; misrepresentation)	4
	Any non-financial signs of problems: unclean and untidy offices and factories, high staff turnover, low morale, rumours, and so on	4
	Sub-Total	12
	Grand Total	100

Interpretation:Maximum Acceptable Scores:

*Group A: up to 10

*Group B: up to 15

*Group C: Any score in this group is immediately seen as an indicator that the firm is at risk.

*Firm - overall score > 25; even if it scores below the individual thresholds, it would be still considered at risk.

Shortcoming:

-Subjectively

-requires large amount of non-financial info.

-reliability and relevance of info.

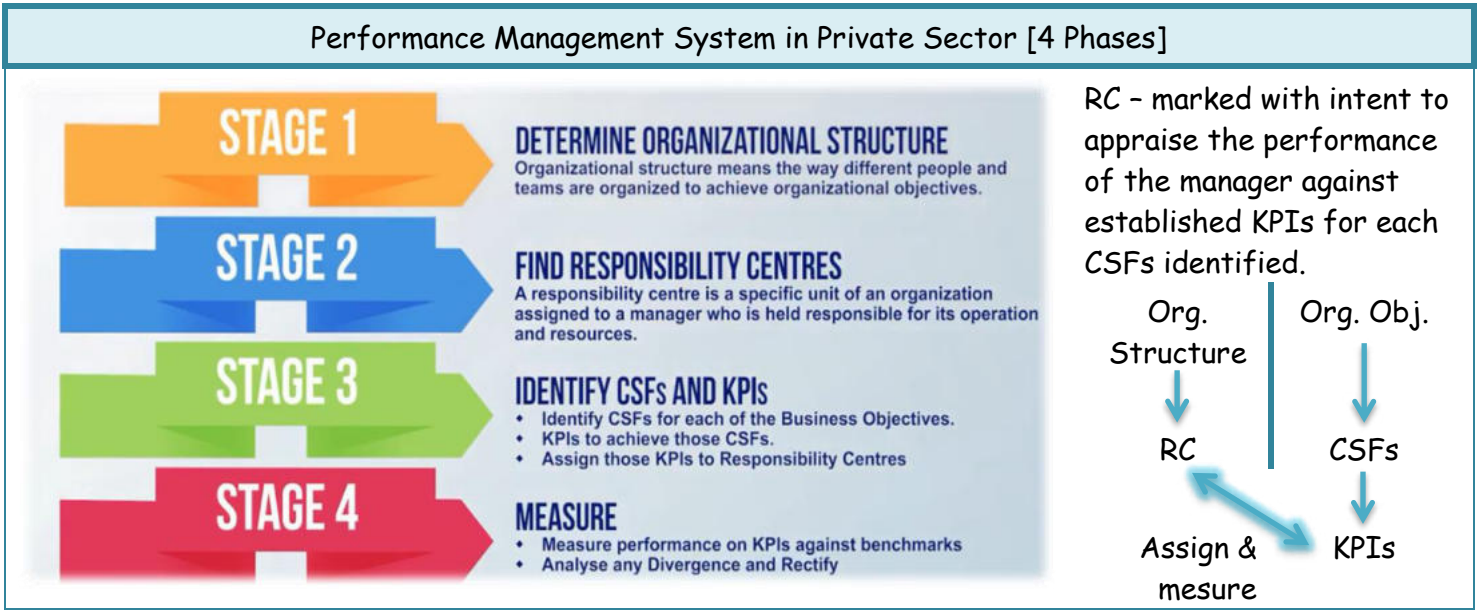
-not suggest solutions.

4. Preventing Corporate Failures:

- One signs are seen → investigate and identify the causes.
- Sometimes → external advice and help of technical experts.
- Effective mgt. system should be in place.



Performance Management System in Private Sector [4 Phases]



Interlinking of CSFs and KPI

<p>CSFs</p> <ul style="list-style-type: none"> *Specific to industry and segment in which business is operating. *Vital for the attainment of Strategic Obj. 	<p>KPIs</p> <ul style="list-style-type: none"> *PM instrument used to measure and monitor the achievement of objectives - to determine the level of success of your actions.
<p>CSFs - areas that are critical for the attainment of corporate obj. whereas KPIs are signals of performance in such areas.</p> <p>KPIs shall be SMART. A single CSF can also have more one KPI if required.</p>	
<p><u>How to identify CSFs:</u> [Rockart highlighted four main sources of CSFs]</p> <ul style="list-style-type: none"> *Structure of particular industry. *Competitive Strategy, Industry position and geographical location. *Environmental Factors. *Temporary Influences. 	

Performance Measures

- It is Prerequisite to measure and evaluate the existing performance using set of performance measures.
- 2 Types:

Pure Financial Indicators	Integration of Financial & Non-Financial Indicators.
GP/ ROCE/ ROI/ RI/ EPS/ EVA/ NPV. [Covered in AFM in detail - refer Questions in SM]	Balanced Scorecard/ Performance Pyramid, Building Block Model; Triple Bottom Line

- Integration of Financial and Non-Financial Indicators:

Unlearn - Relearn the Relevant
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Balanced Scorecard

It is a method which displays Org. performance into 4 dimensions.

- | Financial | Customer | Internal Business | Learning & Growth |
|---|---|--|--|
| 1. <u>Financial Perspective</u> : 'how do we look to Shareholders?'
Focus on financial performance of company and divisions from the perspective of Shareholder. | 2. <u>Customer Perspective</u> : 'How do Customers view us?'
It includes measures such as customer satisfaction, customer loyalty, Repeat Buyer, recall etc. | 3. <u>Internal Business Perspective</u> : 'At what must we Excel?'
It views Org. performance through Quality and Efficiency of process to achieve Obj. of Financial and Customer perspective. It includes measures such as productivity, Replacement Time, etc. | 4. <u>Learning & Growth</u> : 'How do we continue to improve and create value?'
It views org. performance through HR, Technology, Innovation, culture etc. It includes measures such as Investment in R&D, Training Hours, and Employee T/O etc.
[Sources: people/ system/ procedures] |

Measures [KPIs]

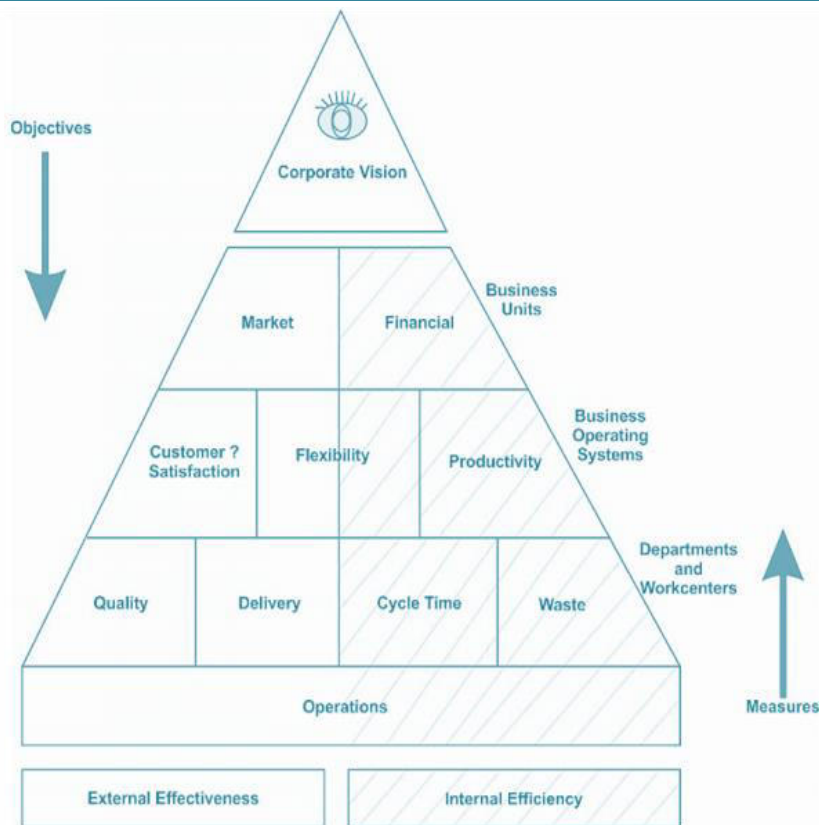
Customer Perspective	Internal Business	Financial Perspective
Customer complaint resolution time	MCE -	Revenue, ROI, EVA
Product or Service Quality Metrics	Productivity	Profitability & Operating Ratios.
Brand Perception Survey	No. of defects or errors	Learning & Growth
Customer Feedback and surveys	Replacement Time	Amount Invested in R& D
Customer Churn Rate	Inventory T/o Rate	Innovation Index
Customer Life Cycle Value	Employee productivity metrics	Employees Satis. rates
Time to Resolution for support issues.	No. of Support Centre	Training Effectiveness
New customer conversion Rate	On-Time Delivery Performance	Skill Acq. Rate
Customer Segmentation Metrics	% of Automation.	Succession Planning Eff.
Social Media Mentions and Sentiments	% of project completed on bud	Team Collab. Met.
	Energy Eff. Metrics/ ES Met.	Work life Bal. Index

Balanced means: → Blend of Financial & non-Financial/ Internal & External Factors/ Links LT & ST Obj.

Performance Pyramid

- Also known as 'Strategic Measurement Analysis and Reporting Technique' - by **F. Cross & R. L. Lynch**.
- It concentrates only shareholders and customers.





*Flow of Objectives from bottom to top.

*Left Side - External Forces - non-financial.

*Right side - internal efficiency - predominantly financial.

*Measures interact both horizontally and vertically.

L1 - Through corporate vision, org. defines how LT success and competitive adv. Will be attained.

L2 - In order to achieve corporate vision, the initial focus is on the attainment of CSFs related to market and finance at the SBU or at division level.

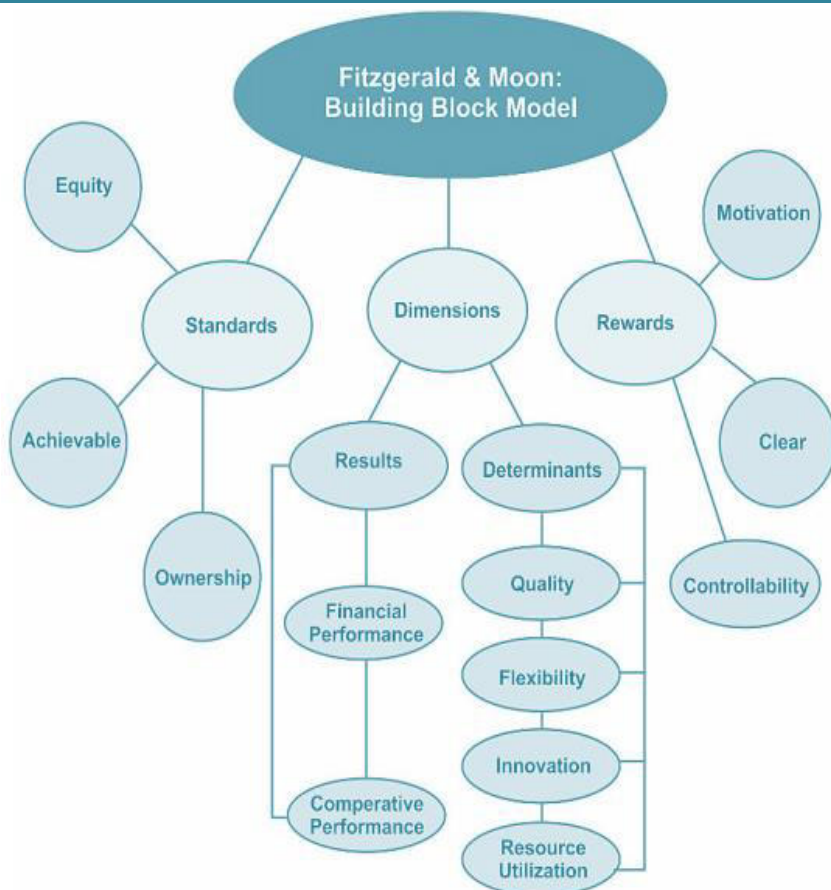
L3 - Market and financial strategies become guiding forces to achieve a strategic obj. which includes Customer Satisfaction, Increased flexibility and high productivity.

L4 - operational perf. Dimensions such as Quality, delivery, cycle time and waste ect. Will be used as s status check for the strategic obj. designated at L3.

Building Block Model

- By **Fitzgerald & Moon**.
 - Mainly for performance measurement of service industries. It can be applied to other also.
 - Three Building Blocks → Dimensions, Standards and Rewards
1. **Dimensions:** Business goals that company wants to achieve. CSFs and sufficient measures.
Determinants:
 - a. Quality: ability to deliver service with consistency.
 - b. Resource utilization: ability to use resources in efficient way.
 - c. Innovation: ability to devise new products & new ways of doing things.
 - d. Flexibility: ability to cope with changes.
 2. **Standards:** targets related to performance measures. I.e. KPIs
 - a. Equity: Equally challenging for all.
 - b. Achievable: Should be realistic.
 - c. Ownership: acceptable to everyone.





3. **Rewards:** to ensure that employees are motivated to meet standards, standards need to be clear and linked to controllable factors.
 - a. **Motivation:** Reward Scheme should be set in manner which motivates employees to achieve desired results.
 - b. **Clear:** Should be clearly communicated to employees in advance.
 - c. **Controllability:** Reward or penalized only for results over which they have control or influence.

Financial Performance: in monetary terms [used to identify S & W]

Competitive Performance: Competitive edge/ Advantage.

Results reflect the success or failure of determinants.

Triple Bottle line

It measures not only profit but also measure impact on society & environment.

TBL Framework incorporates **3 Dimensions** →

Economic [Profit]	Social Equity [People]	Environmental [Planet]
Measures maintaining or improving the co.'s success in terms of adding value to SHs.	Relates to corporate governance, motivation, incentives, health and safety, human rights and ethical behavior.	Measures impact on resources and emissions to determine the environment impact and ecological footprints.

Performance subsets → Bearable Equitable Viable sustainable

Sustainable Decision → it need to acceptable from the aspect of each bottom line.

Planet	People	Profit	Performance SS
Acceptable	Acceptable	Not Acceptable	Bearable
Not Acceptable	Acceptable	Acceptable	Equitable
Acceptable	Not Acceptable	Acceptable	Viable
Acceptable	Acceptable	Acceptable	Sustainable



Role of Quality in PMS	
Quality practices in PMS and Quality Cost	<p>Monitoring Cost of Quality → core function of Quality Improvement Program</p> <ul style="list-style-type: none"> • Most Imp. → Create KPIs based on COQ → use as base for staff rewards. • Modified Behavior → workers and managers towards quality practices → performance can be enhanced at lowest possible cost.
Role of QMS in PMS	<p>Effective Quality Management System support org. strategy by:</p> <ul style="list-style-type: none"> - Reduce the overall cost of quality at optimum level. - Leads to a higher level of quality that in turn improves customer satisfaction - Improvement drive → staffs and managers feel empowered with high morale and productivity.
Role of Lean production system in PMS	<ul style="list-style-type: none"> - LPS - cutting out waste and unnecessary activities. - It is closely related to quality practices. - Therefore, it results in improvement of performance.
Quality in MIS	Good Quality Info. → helps mgt. to take informed and better decisions.



NPOs

Principle Operations - Non-economic activities. | No Wealth Creation | No surplus distribution

Performance Measurement

1. Challenges and Solutions for performance measurement:

Challenges	Difficult to Quantify	Performance and Commitment of State	Multiple Objectives	Measuring the utility of funds
Solutions	Relative Value can be used to assign value to cost incurred and benefit earned	No specific solution	Prioritizing	Value for Money Framework

Models for Performance Measurement

1. Value for Money Framework

NPO are expected to provide the best possible value from available money. VFM framework ensures: [3Es]

- Efficiency: Spend well - a link btw Input and Output factor.
- Effectiveness: Spend wisely - an output measure, goal approach.
- Economy: Spend less - an input measure - resource approach.

Now 2 more E s added → Equity (Spend Fairly) and Ethics (Spend properly).

2. Adapted Balanced Scorecard by Kaplan

Four perspectives:

Customer Perspective	Satisfaction of beneficiary, Market Growth, and other SH interest
Financial Perspective	Fund raising, Funds Growth, Funds Distribution
Internal Processes	Internal Efficiency, Volunteer development, Info. comm. and Quality
Innovation and Learning	The capability of Org. to adjust to the changing environment and Innovation Changes.

Performance Measurement Process

- Identification of overriding obj. and mission of NPO.
- Objectives are mapped with various perspectives of Balanced Scorecard.
- KPI of each perspective is defined.
- Actual outcome is measured and evaluated against KPIs.
- Changes if any after analysis of results.



Role of Performance Report in PMS

- It compares actual outcomes to a budget or standard, as well as the variances btw the 2 figures.
- Efficient PMS must be capable of recording and reporting the performance related info.
- Helps in quantifying and prioritizing of issues.
- Works as Benchmark for tomorrow.
- Helps in resource planning.

Responsibility Accounting

- It deals with the Collection, summarization and reporting of info. Where individual manager is held accountable for certain costs, revenue or assets of the firm.
- It lays foundation as info. Sub-system of PMS to measure and evaluate the performance, both in Profit oriented as well as in NPOs.

Aspects involved in preparation of PR

1. Clear idea about need and use. [Mainly written for Senior Mgt.]
2. Establishment of Obj. in light of Org. obj. [Vision and Mission]
3. Add an Executive Summary. [Briefs and concise form of Info.]
4. Performance Assessment. [can include Financial/ Non-Financial Quantitative & Non-quantitative]
5. Layout is key - Visual elements & narrative commentary can be added.
6. Details quoted shall be cross checked.

Type of PR:

1. Earned Value Report: often part of status report.
2. Forecasting Report: used for better resource utilization.
3. Progress Report:
4. Status Report: Mostly used as Project Status Report.
5. Trend Report: It can be monthly, quarterly, semi-annually or annually.
6. Variance Report: Actual V/s planned progress of a project.

Analyze various PR

- It rests with senior managers or experts who understand Business intelligence.
- Creating an action plan to improve the performance.

Some E. g. of Sustainability -oriented reporting Frameworks for practice of Strategic Performance Mgt.

1. Triple Bottom Line Report.
2. Global Reporting Initiative.
3. ESG Reporting.
4. Integrated Reporting Framework.

