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
- 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)	- 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:

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 Services[1]

2. **Secondary Activities:** Ensure support to perform primary activities.

Firm Infrastructure	Technology Development	Human Resource Mgt.	Procurement

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.

B) Strategic Positioning

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

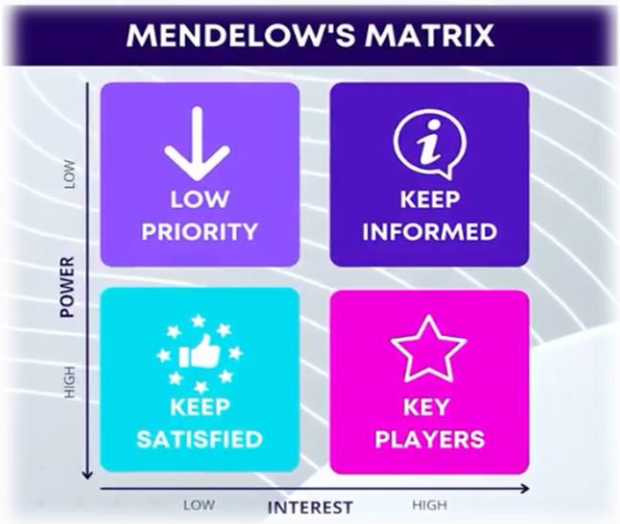
- that matters for the purpose of establishing performance targets
- in addition to determining means of attaining the same; and
- Then measurement of performance and evaluation thereof.

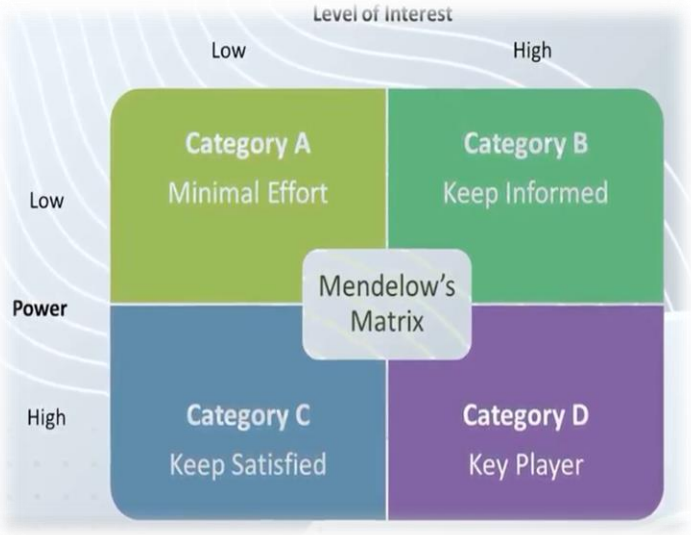
It is the Study of

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	Executional Activities & Drivers

Key Tools of SCM and their Nature [It will be dealt in other Chapters]

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: Marketing Cost Analysis – Very Critical Distinctive Value to customers Not Price Sensitive	**Cost Leadership:** Role of Standard Costing – Very High. Highly competitive market. 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.

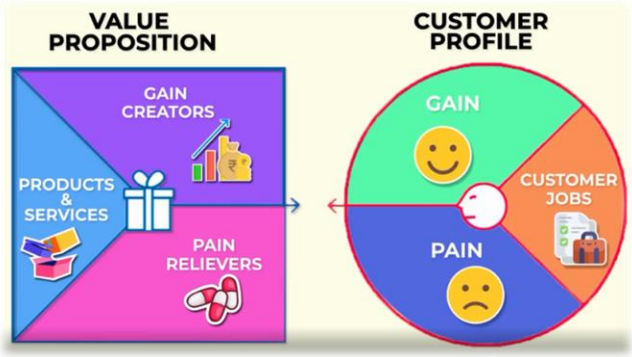
Value Proposition: It is oriented to customer's needs and problems. [Products/ Services business offers to Target Customers that create value].

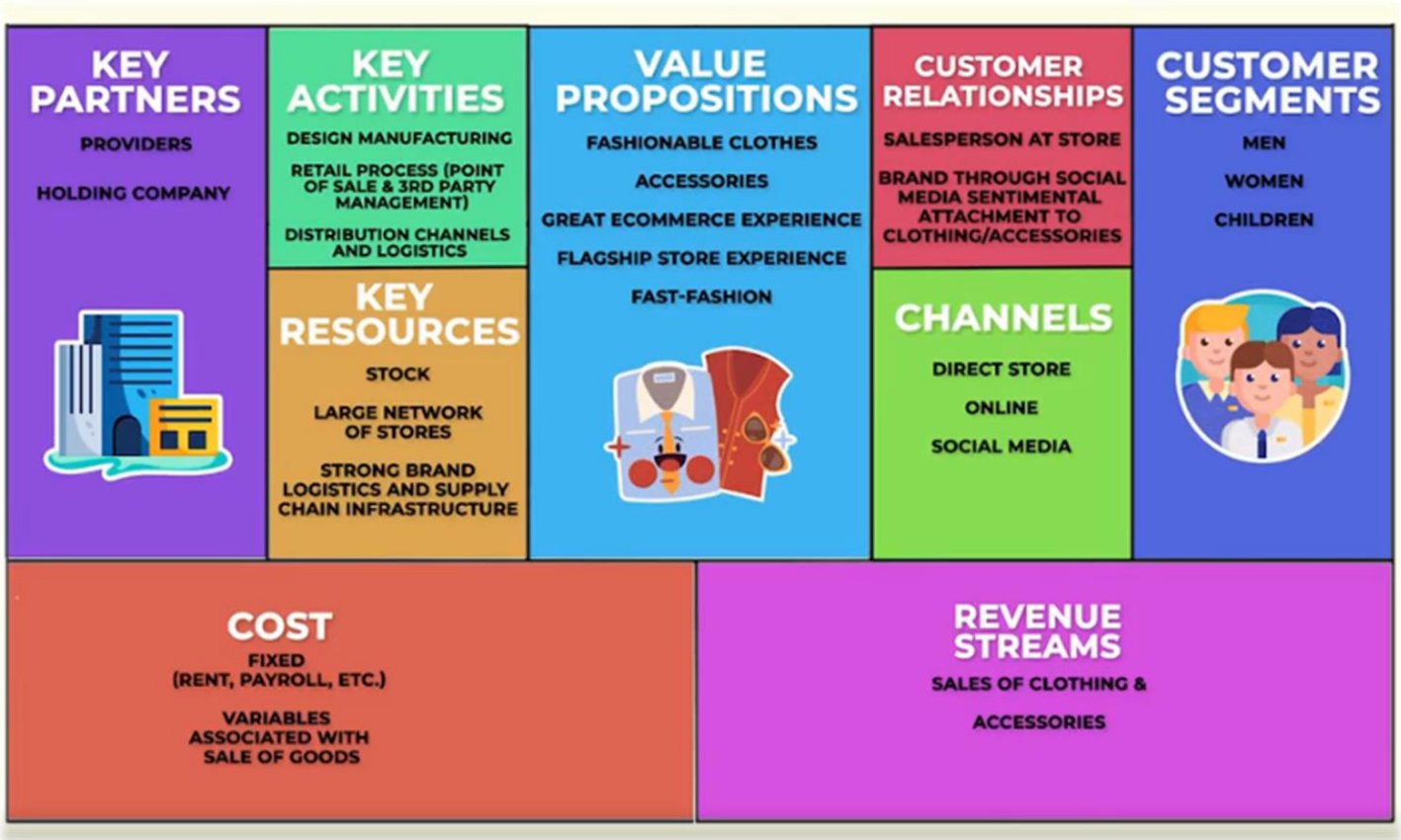
[2] Discussed earlier: Industry Structure Analysis | Core Competencies Analysis | Segmentation Analysis

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 preposition 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	Prevention Cost: preventing the poor quality of Products/ serv.	Before Prod.	Engineering/ Training/ Review/ Quality Audits/ Field Trials.
		Appraisal Cost: measuring and monitoring activities related to Quality	During Prod.	Inspections/ Supplier Verification/ Outside Certification/ Field Testing
	Cost of Poor Quality	Internal Failure: deficiencies may by error or inefficiencies.	After Prod. Before Sale	Rework/ Scrap/ Repair/ Retesting/ Downtime.
		External Failure	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	

Chapter 2 – Modern Business Management

	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	
	React short term action to long term plans.	Plan
	Reduce variation & dependence on inspection.	Dependency
	Institute leadership rather than supervision.	Leadership
	Training on Job	Training
	Breakdown barriers btw departments	Barriers
	Single supplier for one item	Vendor
	Institute education and self-improvement	Education
	Transformation of everyone's job	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 homer 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	1. Relationship with suppliers Supplier's capabilities of innovation, quality, reliability and agility to reduce risk factors – gives greater value to our business. 2. Use of Technology[Main activities of Upstream SC–Procurement and logistics] a. E-Procurement: [reduce cost, time, quick ordering, best supplier selection.] Begin – identification of org.'s requirement and ends on payment i. E-Sourcing ii. E-purchasing. iii. E-Payment.	
Downstream SCM	1. Relationship marketing: helps to keep existing customers and attract new customers Helpful staff, Quality service/ product. Six Markets Model: Market domain where org. may consider directing marketing activities. 1. Internal Markets: Internal Dept. and Staff [customer oriented corporate culture] 2. Referral Markets: Existing Customers & Referral Sources. 3. Influence Markets: Digital marketing [Push Marketing]. 4. Recruitment's Markets: required skills[Focal point for relationship marketing] 5. Suppliers Market: Suppliers + Strategic alliances. 6. Customer's Market: Existing + prospective + Intermediaries. 2. Customer's relationship Mgt.: a. Analysis of Customers and their behavior. b. Customer Account profitability. Process of CAP Improvement [E.g. Banks] – Technique of Activity Based Costing. 1. Analyze customer base and split it into the segments. 2. Calculate annual revenues earned from the customer. 3. Calculate annual costs of serving the segment [major problem in CAP analysis] 4. Identify and retain quality customers. [Loyalty] 5. Re-engineer/ eliminate unprofitable segments. c. Customer's Lifetime Value: Present value of Net profit – entire lifetime of Rl. d. Customer's selection, acquisition, retention and extension [Re-sell/ Cross Sell/ Up-sell]. 3. Use of Technology a. E-Business b. E-mails. 4. Brand Strategies: 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 [3 Steps]	Establishing Cost Reduction Goal (Kaizen Cost Target)	Product Feature Changes
	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

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

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

Tecniques 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 *Safety Slogans, Posters	*Analyzing processes & procedures- Office Automat.

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Measuring TPM	The calculation of OEE measure requires the identification of 'six losses'.					
	Equipment Failure/ breakdown	Set-up/ Adjustment	Idling and Minor Stoppages	Reduced Yield	Reduced Speed	Quality Defects and Rework

5) Cellular Manufacturing/ One Piece Flow Production System [U shaped Design]			
Ideas	To move as quickly as possible	Make a wide variety of similar product	Making minimum waste
Implementation Process:			

Step 1 - Grouping	Step 2 – Systematic Analysis	Step 3 – Optimization
Parts – grouped – similarities. Clustering Methods *Part Family Grouping *Machine Grouping *Machine-part groupng	Production Flow Analysis for → Manuf. families Design/ product data for → design families. **Difficulties in creating Flow** Exceptional Elements; Machine Distance; Bottleneck machines and parts; Machine Location and relocation; Cell Load Variation; Vell Reconfiguring; Operation and completion times.	After determining variables at given level of uncertainity → Optimizing to minimize factors. **Benefits:** Scattered Processes are merged to form short, focused paths in concentrated places.

Six Sigma [Bill Smith]

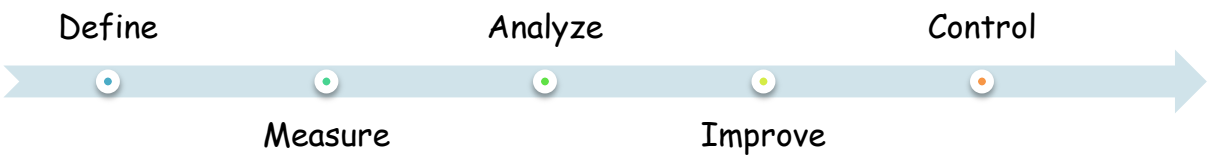
No Zero Defects, aims to reduce the defects to virtually zero.
[slowly achievening quality nearing perfection]

Methodology in Six Sigma [2]

DMAIC

Imrpove existing process.

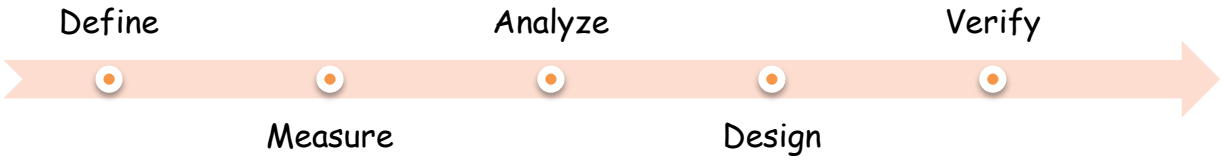
*Reactive
*Increase capability



Define – the problem, the project goals and customer requirments.
Measure – determine current performance.
Analyse – determine root causes of variation and poor performance.
Improve – adrress and eliminat root cause.
Control – maintain improved process and future process performance.

DMADV

Develop new processes or products



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*Proactive *Increase capacity.	**Define** the project gosls and customer deliverables. **Measure** and determine customer needs and specifications. **Analyze** the procees options to meet the customer needs. **Design** (detailed) the procees to meet the customer needs. **Verify** the design performance and ability to meet customer needs.
Limitations	*Focus – specific type of process only/ on Quality only; * Real time barrier to apply

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

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	1. Leadership of Target Selling Price. 2. Focusing on Customer. 3. Using and Developing Teamwork.		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

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		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

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 oof 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

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<table>
<tr><td></td><td></td><td>*Contingent
*Relationship & Corporate Image</td><td>*Internal Failure
*External Failure</td><td>*Costs of wasted material, capital and labor.</td></tr>
<tr><td rowspan="2">Steps to manage Environmental Cost</td><td colspan="2">Identification</td><td>Allocation to Cost Centre & Cost Units</td><td>Controlling</td></tr>
<tr><td colspan="3">Techniques for identification and Allocation:
1. Input-Output Analysis
2. Activity Based Costing
3. Flow Cost Accounting
4. Life Cycle Costing.</td><td>Elements to Control
Waste Consumption
Water
Energy
Transport & Travel
Consumable & Raw Materials</td></tr>
</table>

Management of Cost Strategically for Emerging Business Model

Part I	Part II	Part III
Changing business Environment →	**Emerging Business Model**	← **Strategic Response**
*Digital Technologies *Business Ecosystem *Hyper Competition *Transportation and disruption *Advanced Maufacturing *Lean Start-up *Agile Organisation. *Start-ups Vs Incumbents *Intrapreneurship *Innovation Hubs and Incubators *Supply Chain Partnership	*Hyper Disruptive *Models relevant to sustainability *Models Relevant Emerging National Markets	*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	*Identification of Stakeholders *Value Creation and capture *Positioning and Role Definition *Assessment of Dependencies & Influences (Critical for Risk Mgt.)	*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. 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]	

Management of Cost Strategically for Emerging Business Model

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.

Basis of classification: 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]

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Management of Cost Strategically for Emerging Business Model

Lean Startup e.g. Drop-Box	- 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). Build - Measure – Learn feedback loop is a key component of Lean Startup Methodology. [Iterative process] 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.
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.

Design Thinking → Lean Start Up → Agile → Six Sigma

Startup V/s Incumbents	Differences → Refer SM 5.22 – 5.24 Stages of Startups – 3 Stages. 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.	Innovation Hubs: Spaces & programs designed to foster innovation, particularly in the field of technology, entrepreneurship and business development. Incubators: Focus on early stage startups that do not have a BM.	Approaches to SC Innovations (evolved in response to customer needs & desires): 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

Management of Cost Strategically for Emerging Business Model

Part II – Emerging Business Models

Hyper Disruptive Business Models

*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.

Different Types

Free Model [1.1]	Subscription Model	Freemium
Core product is distributed for free to a large no. of users. Premium products to as smaller subset of users who desire premium features.	Pay recurring fees to gain access to the service. E.g. Newspapers, Netflix. Variants: Content Subs.; Service Subs; Product Subs.; Membership Sub.	[Free + Premium; Risk Free Trial] E.g. Adobe Reader; LinkedIn; Spotify; Applications: Software and Apps; Online Games.
E-commerce Model	**Hypermarket Model**	**Access over ownership**
Flexibility and Convenience. B2B/ B2C/ C2C/ C2B. Amazon Wholesale/ Amazon/ OLX/ Naukri.com	Large Co. use their economies of scale to offer competitive prices. E.g. Reliance Retails	Temporary access to goods or services. e.g. Uber
Service Ecosystem Model	**Experience Model**	**On Demand Model**
Offer diff. products, they will be integrated. [Lock system – limits competition/ Cross-sell/ Up sell opp.] E.g. Apple/ Banks.	Adding an experience component to a product or service that elevates its value to the customer. e.g. Rolls Royce Cars	At monetization stage – it is disruptive. Charge premium for instant access. E.g. Uber; Blinkit Grocery in minutes.

1.1 Free Model

Advertising (Hidden Revenue) Model	Cross-Subsidization (Razor Blade Model)	Open Source (Free Access or Gift) Model
Advertisers pay the org. for access to its audience.	Provides a free product or service to customers in order to drive high margin sales of a complementary product.	BM around Open Sources are: *Support and services *Dual licensing *Complementary Products. E.g. Tally

Models relevant to Sustainability

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)

Product Service System	Open Innovation	Peer-to-peer Innovation
Closed-loop production	Crowd-funding	Sharing Economy
Social Enterp. and benefit corp.	Gift Economy (extreme form of sharing economy)	New manufacturing paradigm

Strategic Revenue Management

Decision Making(DM) Techniques – classification		
Based upon Time Horizon	1. Long Term Decision Making [DCF] 2. Short Term Decision Making [Contribution] →	About Short Term DM: *Ignore Time Value of Money *Fixed Costs – irrelevant cost.
Based upon Nature	1. Making decisions with limited or scare resources 2. Considering Risk and Uncertainty	3 Methods:[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) = Fixed Cost p. u. / Contribution p. u.	Under CVP + ABC: BE (units) = [Fixed Cost under ABC + (Batch level Cost Driver*Cost per Batch Driver) + (Product Sustaining Cost Driver*Cost per Product Sustaining CD)] / 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.	Cost Equation: Total Cost [JIT] = Fixed cost + (Unit Variable Cost * No. of Units) + (Engineering Cost * No. of Engineering Hours)	

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Strategic Revenue Management

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

*Make or Buy Decision.

Benefits:

Reduce Costs & benefit from supplier Efficiencies

Decision:

Incremental Cost Savings + Opportunity Costs > Incremental Cost [Relevant cost]

**Unless qualitative factors fiercely impact the decision.

Qualitative Factors: *Cost Savings *Investment Returns *Managerial Bandwidth *Skilled Manpower *Concerns * Seasonal Demand *Confidentiality and Patents *Infrastructure and Transport. * Risk of Obsolescence.

1.2 Sell or Process

- Usually used in the case of Joint Products.
- Relevant Cost: Incremental Cost and Revenue of the further process. [Joint Process Cost – Sunk Cost.]
- Qualitative Factors – 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

- Related to unprofitable segments.
- Drop → Incremental Cost Savings > Incremental Revenue Lost, **unless qualitative factors fiercely impact the decision. [Opp. Cost – common in both.]

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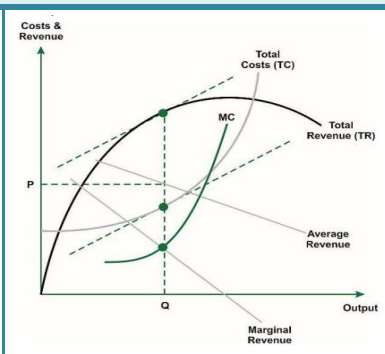
1.5 Special Order	• Whether to accept or reject orders that come with a unique pricing request, often lower than usual. [It is attractive when firm operating below its maximum production capacity] • Accept → Incremental Revenue > Incremental Cost [VC + Add. FC], **unless qualitative factors fiercely 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	*<u>Optimum Price:</u> Price that yields the maximum profit. *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. *Q – Equilibrium Volume – Gap btw TC and TR Line Max. (MC =MR)	
	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

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	* 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. Telcom Industry
	No Pricing Policy [Market Price]	Any Price [Premium Price]	Market Price or Below Market Price	*Predatory Price *Limit Price *Raise Price Togeth.
	Non-Price Strategies – Oligoploists: *Advetisment, 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	Substitue 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

	Skimming Pricing (High –early; reduces later)	Penetrating Pricing – not predatory (Low Price –attract large no)
Pricing Strategies	*Early demand inelasticity. *Skimming the cream *Covering initial costs *Financing high prod. & mar. cost	*Initial Losses for future. (EC) *Market Expansion. *Long Term Strategy *Discourage Competition.

Strategic Revenue Management

<table>
<tr><td>1.2
Pricing of Existing FG</td><td>
1.2.1 Cost Based Pricing
* Full Cost of the product at current level output and wage levels.
* Selling Price = Total Cost + *Desired Profit.
*Desired Profit – 2 Ways:
1. Mark up – Pricing: Adding standard mark-up to the production cost. used when cost are known, demand can't known accuretly.
2. Tagret Rate of Return: Invested Capital*Desired ROR. Used when estimated sales, demand, units cost are known; less competitive envir.
1.2.2 Competition Based Pricing
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. True Economic Value: Cost of next Best alt. + value of performance differential
2. Perceived Value: Value that customer understands the procut deliver to it.
</td></tr>
<tr><td>1.3
Pricing of Service.</td><td>
Classification of Service:[Based on nature of work involved and involvement of receipt]
<table>
<tr><td>People Proceesing Services</td><td>Product/ Possession Processing Service</td><td>Mental Stimulus Processing Service</td><td>Information Processing Service</td></tr>
<tr><td>Hair Cut</td><td>Washerman</td><td>Light Show</td><td>Consultancy</td></tr>
</table>
Pricing determination – Different ways: Collective Manner (Association); Incorporate Intangible Cost as well as tangible costs.
</td></tr>
<tr><td>1.4
Pricing in case of emerging BM (Chapter 5)</td><td>
1. Hyper Disruptive BM: based on disuptions and possibilities.
2. Models relevant to sustainability: Luxury & Sin Goods – Higher; Essentials- regulated.
3. Models relevant emerging national market: Key determinant → Value of money.
Common Considerations in emergin markets: Innovations; Value propostions; ESE Impact
</td></tr>
<tr><td>1.5
Sensitivity Analysis in PD</td><td>
• Balancing Act [attractiveness to consumers and need to cover the costs and achieve Financial Goals]
• Identifying th poor controls and value leakages.
• Opportuity Identification.
Conducting Sensitivity Analysis:
1. Selection of Critical Parameters.
2. Systematic Variation.
3. External Factors.
4. Internal Factors.
</td></tr>
<tr><td>1.6
PD in special circumstances</td><td>
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. Perishable Materials. 2. Excess Inventory. 3. Penetrate Market. 4. Cross Selling Opp.
Competition Law → Prohibits predatory pricing
</td></tr>
<tr><td>1.7 Ethical Issues in Pricing</td><td>
<table>
<tr><td>Price Gauging (In emergency situations)</td><td>Price Discrimination</td></tr>
<tr><td>Predatory Pricing</td><td>Misleading Pricing</td></tr>
</table>
</td></tr>
</table>

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Strategic Revenue Management

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 Geographic Pricing: Pricing on the basis of locations and countries.
Strategies:
1. Compensation Deals. 2. Barter. 3. Buy-Back Arrangement. 4. Offset.

1.2 Discounted Pricing: case of Bulk Purchases and early payments.
1. Distibutor's. 2. Quantity. 3. Cash 4. Seasonal Discounts 5. Allowances

1.3 Promotional Pricing:
1. Longer Payment Terms 2. Special Event Pricing 3. Loss Leader Pricing 4. Cash Rebates. 5. Warranties and Discounts. 6. Pyschological Discounting.

1.4 Price Discrimination: Possibility for PD only if:
1. Market Segment with different sensitivity or demand elasiticity
2. Prevention of Arbitrage.
3. Protection from Competition. (from high price segment)

Types: 1. Customer 2. Place 3. Product 4. Time.

1.5 Product Mix Pricing:
1. Product Line Pricing:
2. Optional Feature Pricing: Core – base; additional features-add ons
3. Captive Product Pricing: High Price for anciliary 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	Queationable Similar to reverse quality

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Strategic Profit Management

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 were 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.

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:

- Activity necessary?
- Is activity efficiently performed?
- Is an activity sometimes VA and sometimes NVA?

Measuring NVA:

- 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

- 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

- Apply MCE [Manuf. Cycle Efficiency] in reducing NVA activities. E.g. illus. 4.

MCE = Processing Time/ Manufacturing Cycle Time.

Interpretation: Perfect MCE = 1. Any NVA Activity results in an MCE of less than 1.

Manufacturing Cycle Time = VA + NVA

Delivery Cycle Time = Receipt Time + MCT.

Business Applications of ABM:

*Cost Reduction*ABB.*Business Process Re-engineering*Benchmarking*Performance Me.

Implementing ABM

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

Strategic Profit Management

<table>
<tr><td>ABB</td><td>Core Components of ABB – Activity Flexible Budgeting
<table>
<tr><td>Type of Work to be performed</td><td>Quantity of Work to be performed</td><td>Cost of Work to be performed.</td></tr>
</table>
Core Principles:
*Activity Centric Planning. *Detailed Workload Analysis. *Cost Attribution
Process: [Forward Looking Process]
1. Start with output.
2. Identify required activities.
3. Budget resources for activities.</td></tr>
<tr><td>Part3</td><td>Pareto Analysis [Vilfredo Pareto]</td></tr>
<tr><td>Key Feature</td><td>Achieving objectives with scarce set of resources. Vital Few – Trivial Many</td></tr>
<tr><td>80:20</td><td>• 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.</td></tr>
<tr><td>How to find Vital few?</td><td>Pareto Analysis + other analytical tools such as:
Fault Tree Analysis/ Scatter Diagram/ Fishbone Diagrams/ Run Charts.</td></tr>
<tr><td>Cons</td><td>• 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.</td></tr>
<tr><td>Applications of Pareto Analysis</td><td>
<table>
<tr><td>Pricing of a Product</td><td>Customer Profitability Analysis</td><td>Stock Control</td><td>Activity Based Costing</td><td>Quality Control</td></tr>
<tr><td>Can focus on high impact products

Delegation of pricing to Low level of mgt.</td><td>Identifying the Key Customers.

Strategic Decision on CR.</td><td>Control of most of the monetary investment in major stocks.
(20% stock – 80% in value)</td><td>Analyzing, monitoring and controlling 20% of cost drivers responsible for 80% of the total cost.</td><td>80% of reported problems – 20% of causes
Rectifying 20% - great impact on product quality.</td></tr>
</table>
</td></tr>
</table>

Introduction to Performance Management

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

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

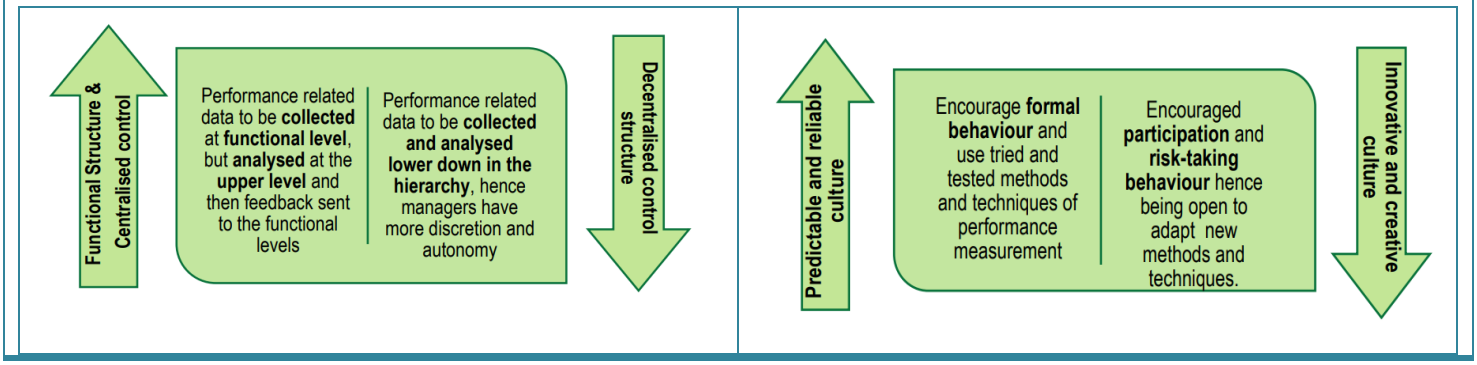
   c. NVA can be outsourced. VA -? (based on different factors)
   d. Even within Org. → at each stage → next user shall be considered as customer.

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

Introduction to Performance Management

Part 3 Influence of Org.'s Structure, Culture and Strategy on Performance Management

A change in Org.'s structure, culture and strategy → result in a req. for new PM techniques and methods.



Part 4 Strategic Performance Issues in Complex Business Structure

1. Complex Business Structure: BS which is → combo of one or more following aspects:

Dilute Control	Shared Obj.	Pooled Resources
Connected Virtually	Diverse Business Environ.	Collaboration of Diff. cult.

2. Specific issues in Different complex BS:

Strategic Alliances	*Difficult to put common PM, *collect and analyze mgt. info. → Security of Confidential Info.	Joint Ventures	Accountability of performance in light of distribution of resources and work - critical
Multinational	Coordination of work towards overall mission and obj. is difficult. Other diff. – Changes in govt. taxation, FT Policy etc. *Difficult in PM – if no common system exist in all.	Complex Supply Chains	Issues affecting trust and efficiencies → lead to poor PM. Coordination through free flow of info. - solution
		Virtual Org.	Collecting reliable performance related data → difficult.

Part 5 Behavioral Aspects – Performance Management System

Create Accountability & Mgt. Control System [Hard or Soft Accountability]	Performance Measures – CSFs & KPI	Mgt. styles & culture modifies the behavior

Part 6 Predicting and Preventing Corporate Failure

1. Reasons for corporate failure:

Fail to innovate or adapt to changes	Too much hostile environment	Too much changes or restructuring	Financial Misappropriations	Power Tussle	Failure of strategy or Strategy decisions

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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.

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

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.

Introduction to Performance Management

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.

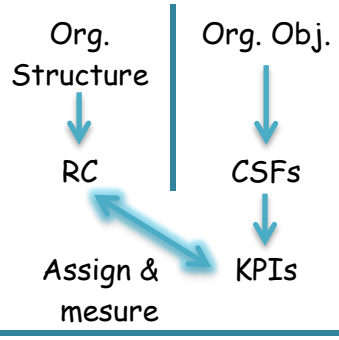
4. Preventing Corporate Failures:

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

Strategic Performance Measures in Private Sector

Performance Management System in Private Sector [4 Phases]

RC – marked with intent to appraise the performance of the manager against established KPIs for each CSFs identified.



Interlinking of CSFs and KPI

CSFs	KPIs
*Specific to industry and segment in which business is operating. *Vital for the attainment of Strategic Obj.	*PM instrument used to measure and monitor the achievement of objectives – to determine the level of success of your actions.

CSFs – areas that are critical for the attainment of corporate obj. whereas KPIs are signals of performance in such areas.

KPIs shall be SMART. A single CSF can also have more one KPI if required.

How to identify CSFs: [Rockart highlighted four main sources of CSFs]

*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:

Strategic Performance Measures in Private Sector

Balanced Scorecard

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

Financial	Customer	Internal Business	Learning & Growth

1. Financial Perspective: 'how do we look to Shareholders?'
   Focus on financial performance of company and divisions from the perspective of Shareholder.

2. Customer Perspective: 'How do Customers view us?'
   It includes measures such as customer satisfaction, customer loyalty, Repeat Buyer, recall etc.

3. Internal Business Perspective: '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. Learning & Growth: '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]

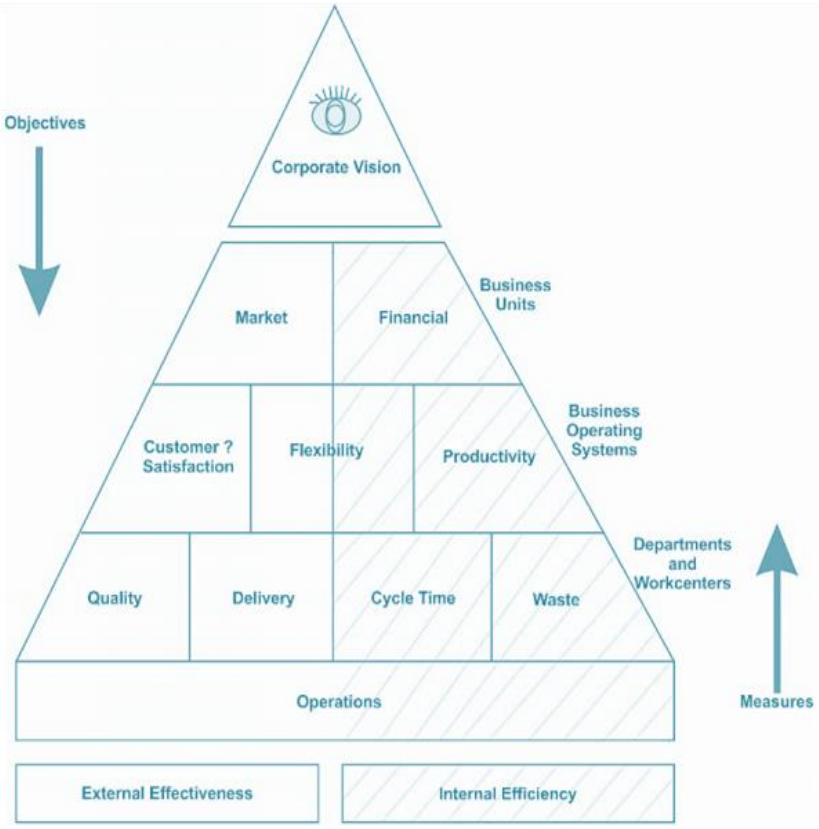
Customer Perspective	Internal Business	Financial Perspective
Customer complaint resolution time	MCE –	Revenue, ROI, EVA
Product or Service Quality Metrics	Productivity	Profitability & Operating Ratios.
Brand Perception Survey	No. of defects or errors	**Learning & Growth**
Customer Feedback and surveys	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.

Strategic Performance Measures in Private Sector



*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.

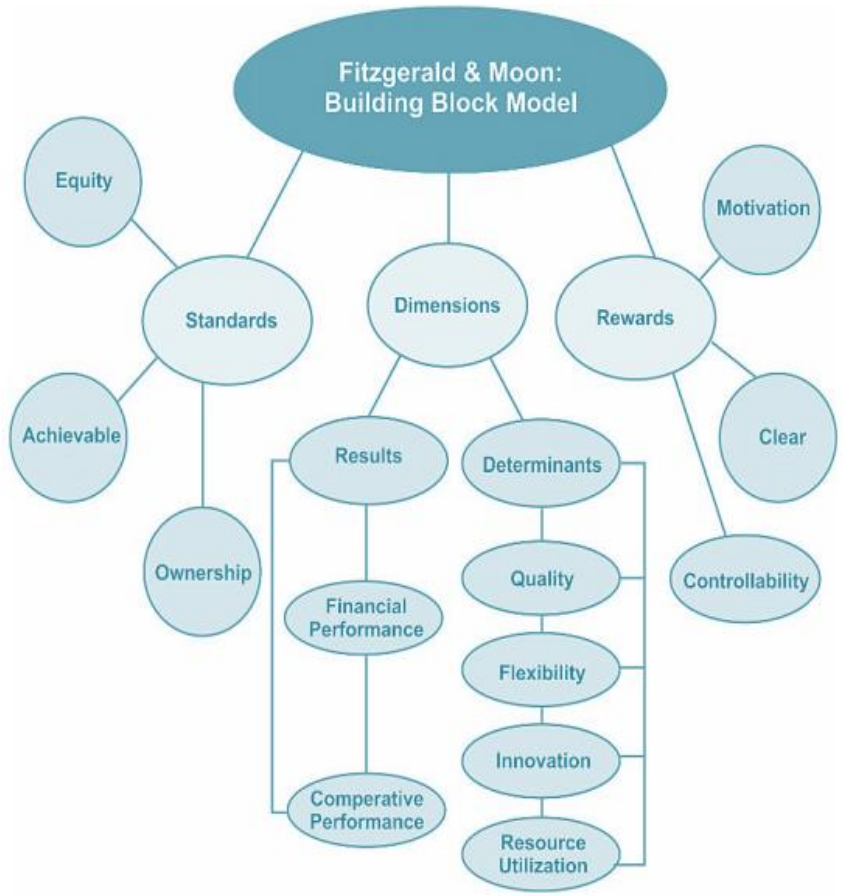
L4 – operational perf. Dimensions such as Quality, delivery, cycle time and waste ect. Will be used as s status check for the strategic obj. designated at L3.

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.

Strategic Performance Measures in Private Sector



Results reflect the success or failure of determinants.

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.

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	Monitoring Cost of Quality → core function of Quality Improvement Program • 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	Effective Quality Management System support org. strategy by: - 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	- 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.

Strategic Performance Measures in NPOs

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]
   a. Efficiency: Spend well – a link btw Input and Output factor.
   b. Effectiveness: Spend wisely – an output measure, goal approach.
   c. 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

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

Preparation of Performance Report

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.

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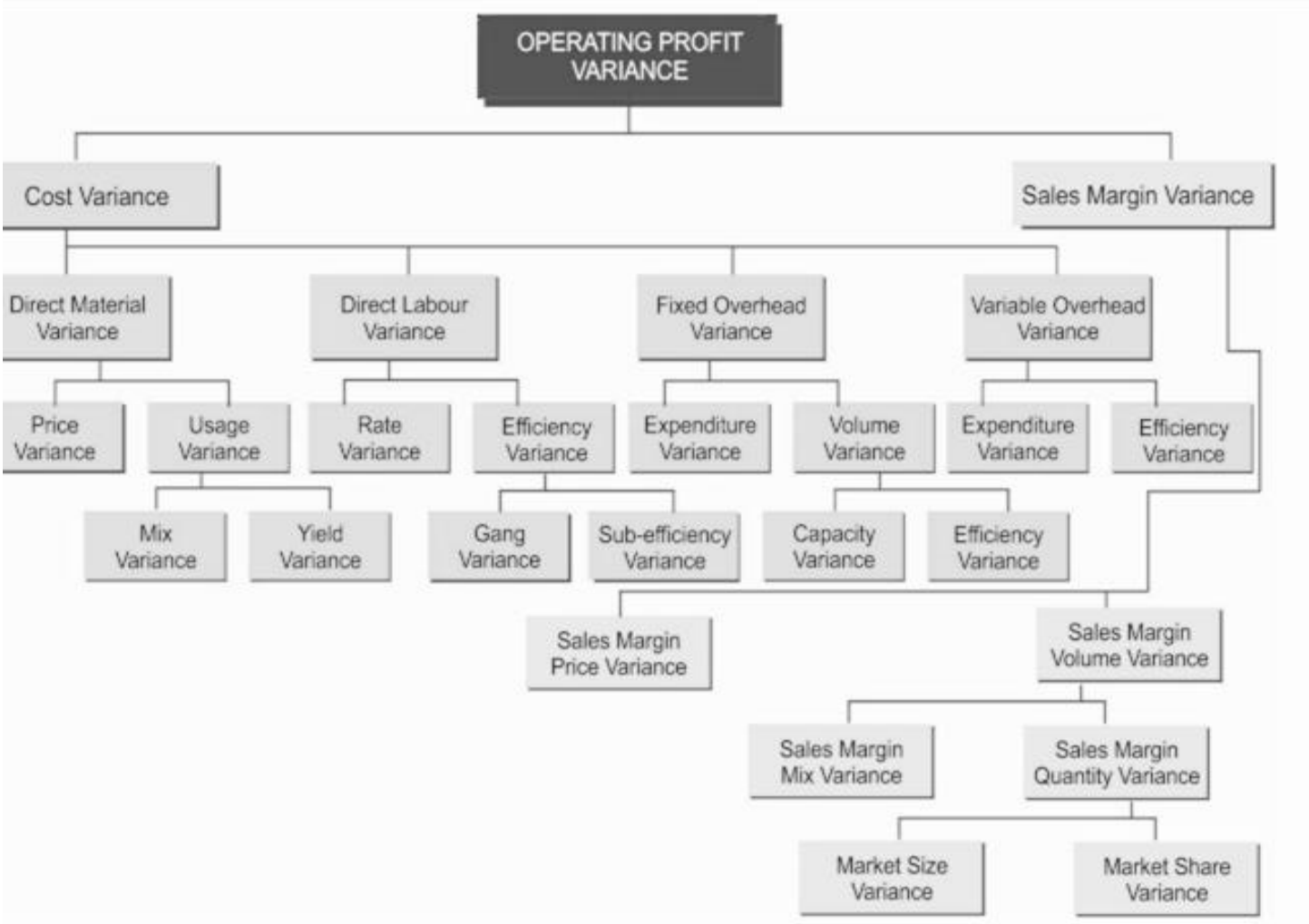
STANDARD COSTING – Part 1 [SCPM – SET B – CA FINAL]

- Standard Cost – Predetermined Unit cost of the product, component or service produced in a period.
- Standard Costing – Control technique that reports variances by comparing actual costs to pre-determined standards so facilitating action through mgt. by exception.

Chapter is arranged into 7 Parts

Part 1 - Analysis of Advanced Variances

- Operating Profit Variances:

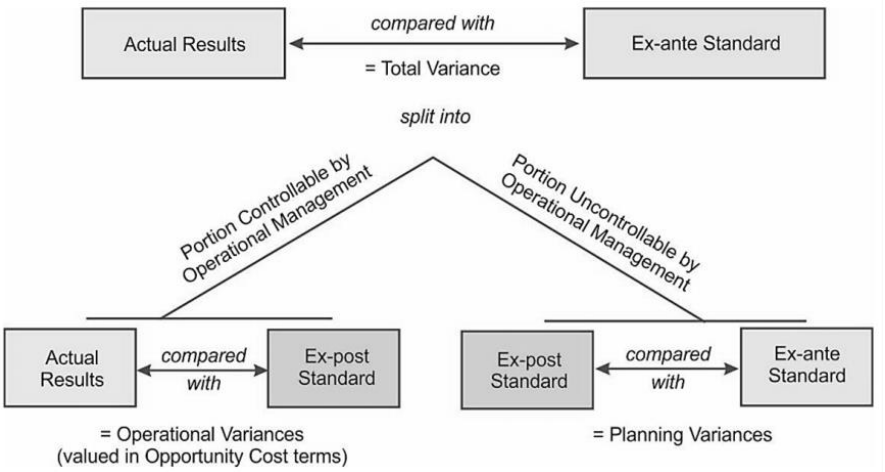


- Traditional Variance Analysis → Actual V/s Standard.
- Modern Variance Analysis → Further split into Planning and Operational Variances.

Traditional Variance Spilt into	Portion controllable by Operational Mgt.	Operational Variance	Comparing Actual Results with Ex-Post Standard
	Portion uncontrollable by Operational Mgt.	Planning Variance	Comparing Ex-post Standard with Ex-ante Standard

STANDARD COSTING – Part 1 [SCPM – SET B – CA FINAL]

1. Planning and Operational Variances



*Standard, ex ante: Standard set before a period of activity commences.

*Standard, ex post: Standard 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.

For Example:

Factor	Original Standards (ex-ante)		Revised Standards (ex-post)		Actual (4,500 units)	
X	4,500 units×2 Kgs×₹12.50	₹1,12,500	4,500 units×2.25 Kgs×₹11.50	₹1,16,437.50	8,750 Kgs×₹13	₹1,13,750

Traditional Variances

Usage Variance = (9,000 Kgs. – 8,750 Kgs.) × ₹12.50
= ₹3,125 (F)

Price Variance = (₹12.50 – ₹13.00) × 8,750 Kgs.
= ₹4,375 (A)

Total Variance = ₹3,125 (F) + ₹4,375 (A)
= ₹1,250 (A)

Operational Variances

Usage Variance = (10,125 Kgs. – 8,750 Kgs.) × ₹11.50
= ₹15,812.50 (F)

Price Variance = (₹11.50 – ₹13) × 8,750 Kgs.
= ₹13,125 (A)

Total Variance = ₹15,812.50 (F) + ₹13,125 (A)
= ₹2,687.50 (F)

Planning Variances

Usage Variance = (9,000 Kgs. – 10,125 Kgs.) × ₹12.50
= ₹14,062.50 (A)

Price Variance = (₹12.50 – ₹11.50) × 10,125 Kgs.
= ₹10,125 (F)

Total Variance = ₹14,062.50 (A) + ₹10,125 (F)
= ₹3,937.50 (A)

Variances	Traditional Variance	Planning Variance	Operational Variance
	Actual Vs. Original	Revised Vs. Original	Actual Vs Revised
Direct Material Usage Variance	[SQ-AQ]*SP	[SQ-RSQ]*SP	[RSQ-AQ]*SP
Direct Material Price Variance	[SP-AP]*AQ	[SP-RSP]*AQ	[RSP-AP]*AQ
Direct Labour Efficiency Variance	[SH-AH]*SR	[SH-RSH]*SR	[RSH-AH]*AR
Direct Labour Rate Variance	[SR-AR]*AH	[SR-RSR]*AH	[RSR-AR]*AH

Refer: Illustration No. 1

2. Variance Analysis in ABC. Illustration 2
3. Learning Curve impact on Variances. Illustration 3
4. Relevant Cost Approach to Variance Analysis
5. VA and Throughput Accounting. [Chap. 4]
6. VA in Advanced Manufacturing Environment. [Chap 5]
7. VA in Service Industry
8. VA in Public Services.

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Concept Insight

McDonaldization[4]

McDonaldization is a process of rationalisation, which takes a task and breaks it down into smaller tasks. This is repeated until all tasks have been broken down to the smallest possible level. The resulting tasks are then rationalised to find the single most efficient method for completing each task. All other methods are then deemed inefficient and discarded[1].

The impact of McDonaldization is that standards can be more accurately set and assessed. It can be easily ascertained that how much time and cost should go into each activity. The principles can be applied to many other services, such as hairdressing, dentistry, or opticians' services.

Recap: Direct Material Variance [More than 1 Raw Material]			
1	2	3	4
SP*SQ	SP*RSQ	SP*AQ	AP*AQ
SQ – Standard Qty. for Actual Production.		RSQ – Actual Qty. in standard Proportion.	
Material Yield Variance	[SQ - RSQ]*SP	1 – 2	Material Usage Variance [1 - 3] [SQ - AQ]*SP
Material Mix Variance	[RSQ - AQ]*SP	2 - 3	
Material Price Variance	[SP - AP]*AQ	3 - 4	
Material cost Variance	Material Price Variance + Material Usage Variance		

Recap: Direct Labor Variance [More than 1 Category of laborers]			
1	2	3	4
SR*SH	SR*RSH	SR*AH	AR*AH
SH – Standard Hours for Actual Production.		RSH – Actual Hours worked in standard Proportion.	
Labor Sub-efficiency or Yield	[SH - RSH]*SR	1 – 2	Labor Efficiency Variance [1 - 3] [SH - AH]*SR
Labor Mix or Gang	[RSH - AH]*SR	2 - 3	
Labor Rate Variance	[SR - AR]*AH	3 - 4	
Labor cost Variance	Labor Rate Variance + Labor Efficiency Variance.		
If there is Idle time			
DL Idle Time Variance	Actual Idle Hours * SR	Actual Idle Hrs. = Actual Hrs. Paid – Actual Hrs. Worked	
DL Net Efficiency	[SH – AH]*SR	AH = Actual Hours Worked.	
Labor Cost Variance	Rate Variance + Idle Time Variance + Net Efficiency Variance		

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Part 2 – Standard and Variances based on Marginal Costing → Standard Marginal Costing System

- It incorporates only costs which are variable to the product.
- Absorption of fixed costs and the variances derived therefrom do not feature in a standard marginal costing system.

Absorption Costing:

Fixed OHs are absorbed into products using FOH absorption rates. Therefore, there arises under or over absorption. This leads to FOH variances. [Calculation based on Output as well as Hours]

1	2	3	4	5
Absorbed FOH	Budgeted FO for AH*	Possible FOH	Budgeted FOH	Actual FOH
SR*AO SR*SH	SR*SO SR*AH	SR*RBO SR*RBH	SR*BO SR*BH	AR*AO AR*AH
Efficiency Variance	1 - 2		Volume Variance [1 - 4]	
Capacity Variance	2 - 3			
Calendar Variance	3 - 4			
Exp. Variance	4 - 5		4 – 5	
Cost Variance	FOH Volume Variance + FOH Expenditure Variance [1 – 5]			

*Actual Hours worked.

In Marginal Costing System, there is only FOH Expenditure Variance. [There is no FOH Volume Variance]

Recap: Direct Labor Variance [More than 1 Category of laborers]		
1	2	3
SR*SH SR*AO	SR*AH SR*SO	AR*AH AR*AO
Efficiency Variance	1 - 2	
Expenditure Variance	2 – 3	
Cost Variance	1 - 3	

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Part 3 – Interpretation of Variances

1. Material Price Variance

- Might be caused due to the use of a different supplier.
- Order size can result in variance.
- Any form of unexpected increase in buying costs such as higher delivery charges.
- Efficiency or inefficiency associated with the buying procedure adopted.
- Lack of appropriate inventory control can result in emergency purchase of material resulting in adverse variance.

2. Material Usage Variance

- Purchase of inferior quality material.
- Implementation of better quality control.
- Increased efficiency in production can help in bringing down wastage rate.
- Changes made in the material mix.
- Careless way of handling material by production department.
- Change in method of production/ design.
- Pilferage of material from the production department.
- Poor inspection.

3. Labour Rate Variance

- Unexpected increase in the pay rate of labour.
- Level of experience of the labour can impact the direct cost of labour.
- Payment of bonuses added to the direct labour costs.
- Change in the composition of the workforce can impact direct labour costs.

4. Labour Efficiency Variance

- Improvement in work or productivity efficiency.
- Workforce mix can have an impact upon labour efficiency levels.
- Industrial action in relation to workforce.
- Poor supervision of the workforce.
- Learning curve effect upon the labour efficiency levels.
- Resource shortages causing an unexpected delay and lowering of labour efficiency levels.
- Using inferior quality of material.
- Introduction of new machinery resulting in improvement of labour productivity levels.

5. Overhead Variances

- Fixed Overhead Expenditure Variance (adverse) are caused by spending in excess of the budget.
- Fixed Overhead Volume Variance is caused by changes in production volume.
- Variable Overhead Expenditure Variance are often caused by changes in machine running costs.
- Variable Overhead Efficiency Variance- causes are similar to those for a direct labour efficiency variance.

Refer: Illustration 6

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STANDARD COSTING – Part 1 [SCPM – SET B – CA FINAL]

Part 4 – Sales Variance [Absorption Costing Vs. Marginal Costing]

Absorption Costing:

Sales Margin Variance*
(Actual Margin) *Less* (Budgeted Margin)
[(AQ × AM) – (BQ × SM)]

Sales Margin Price Variance	**Sales Margin Volume Variance**
(Actual Margin) *Less* (Standard Margin)	(Standard Margin) *Less* (Budgeted Margin)
[(AM × AQ) – (SM × AQ)] *Or* [AQ × (AM – SM)]	[(SM × AQ) – (SM × BQ)] *Or* [SM × (AQ – BQ)]

Sales Margin Mix Variance	**Sales Margin Quantity Variance**
(Standard Margin) *Less* (Revised Standard Margin)	(Revised Standard Margin) *Less* (Budgeted Margin)
(AQ × SM) – (RAQ × SM) *Or* SM × (AQ – RAQ)	(RAQ × SM) – (BQ × SM) *Or* SM × (RAQ – BQ)
Alternative Formula [Total Actual Qty. (units) × {*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 × {Total Actual Qty. (units) Less Total Budgeted Qty. (units)}]

Market Size Variance	**Market Share Variance**
[Budgeted Market Share % × (Actual Industry Sales Quantity *in units* – Budgeted Industry Sales Quantity *in units*) × (Average Budgeted Margin *per unit*)]	[(Actual Market Share % – Budgeted Market Share %) × (Actual Industry Sales Quantity *in units*) × (Average Budgeted Margin *per unit*)]

Note:

BQ = Budgeted Sales Quantity
AQ = Actual Sales Quantity
RAQ = Revised Actual Sales Quantity
= Actual Quantity Sold Rewritten in Budgeted Proportion
SM = Standard Margin
= Standard Price per Unit – Standard Cost per Unit
AM = Actual Margin
= Actual Sales Price per Unit – Standard Cost per Unit

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Market Size Variance
Budgeted Market Share % × (Actual Industry Sales Quantity *in units* – Budgeted Industry Sales Quantity *in units*) × (Average Budgeted Margin *per unit*)
Or
(Budgeted Market Share % × Actual Industry Sales Quantity *in units* – Budgeted Market Share % × Budgeted Industry Sales Quantity *in units*) × (Average Budgeted Margin *per unit*)
Or
(Required Sales Quantity *in units* –Total Budgeted Quantity *in units*) × (Average Budgeted Margin *per unit*)

Market Share Variance
(Actual Market Share % – Budgeted Market Share %) × (Actual Industry Sales Quantity *in units*) × (Average Budgeted Margin *per unit*)
Or
(Actual Market Share % × Actual Industry Sales Quantity *in units* – Budgeted Market Share % × Actual Industry Sales Quantity *in units*) × (Average Budgeted Margin *per unit*)
Or
(Total Actual Quantity *in units*– Required Sales Quantity *in units*) × (Average Budgeted Margin *per unit*)

Market Size Variance + Market Share Variance
(Required Sales Quantity *in units* – Total Budgeted Quantity *in units*) × (Average Budgeted Margin per *unit*)
Add
(Total Actual Quantity *in units*– Required Sales Quantity *in units*) × (Average Budgeted Margin *per unit*)
Equals to
(Total Actual Quantity *in units* – Total Budgeted Quantity *in units*) × (Average Budgeted Margin *per unit*)
Sales Margin Quantity Variance

Marginal Costing:

Sales Contribution Variance (Actual Contribution) *Less* (Budgeted Contribution) [(AQ × AC) – (BQ × SC)]	
Sales Contribution Price Variance (Actual Contribution) *Less* (Standard Contribution) [(AC × AQ) – (SC × AQ)] *Or* [AQ × (AC – SC)]	**Sales Contribution Volume Variance** (Standard Contribution) *Less* (Budgeted Contribution) [(SC × AQ) – (SC × BQ)] *Or* [SC × (AQ – BQ)]
Sales Contribution Mix Variance (Standard Contribution) *Less* (Revised Standard Contribution) (AQ × SC) – (RAQ × SC) *Or* SC × (AQ – RAQ) ***Alternative Formula*** [Total Actual Qty. (units) × {*Average* Standard Contribution *per unit* of Actual Mix Less *Average* Budgeted Contribution *per unit* of Budgeted Mix}]	**Sales Contribution Quantity Variance** (Revised Standard Contribution) *Less* (Budgeted Contribution) (RAQ × SC) – (BQ × SC) *Or* SC × (RAQ – BQ) ***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

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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*)

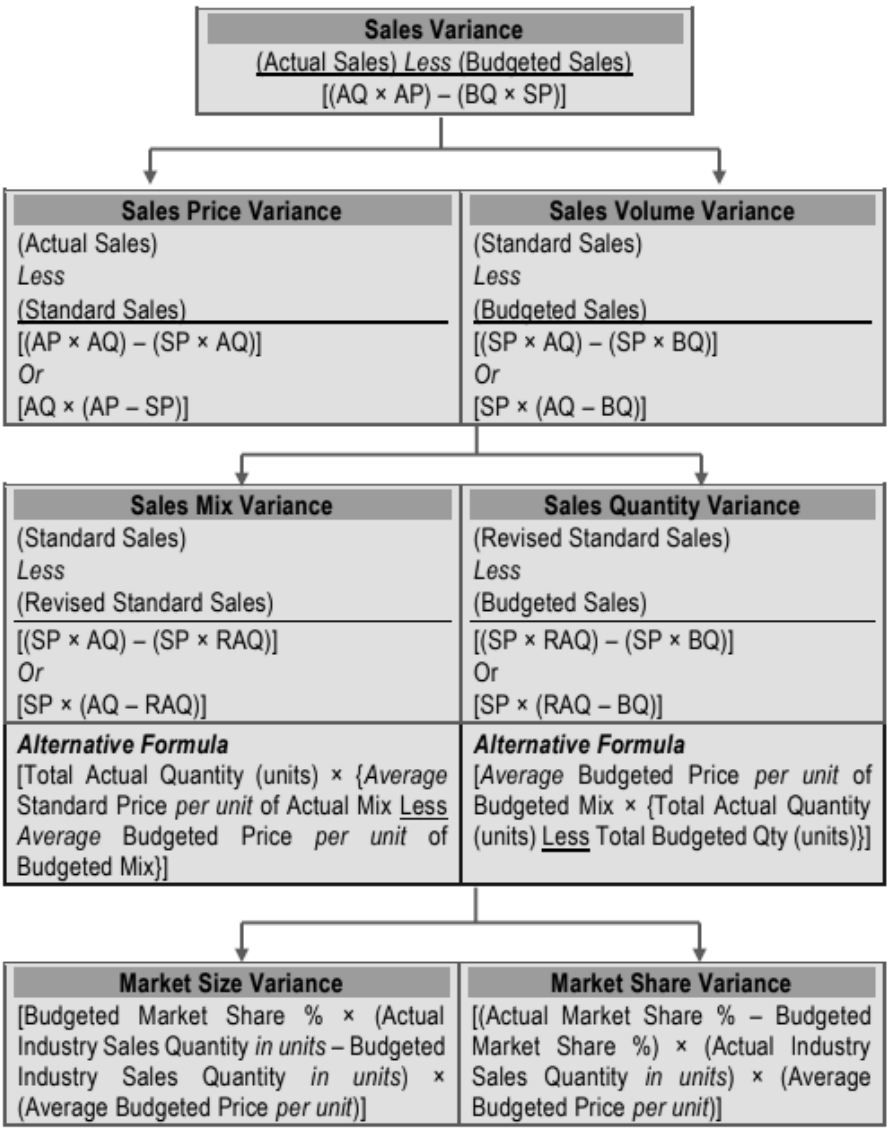
Sales Contribution Quantity Variance

- **Sales Price Variance** is equal to **Sales Margin/ Contribution Price Variance**. This is because, for the actual quantity sold, standard cost remaining constant, change in selling price will have equal impact or turnover and profit/ contribution.
- **Sales Margin Volume Variance** is **equal** to **Sales Volume Variance × Budgeted Net Profit Ratio**
- **Sales Contribution Volume Variance** is **equal** to **Sales Volume Variance × Budgeted PV Ratio**

A 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.	

STANDARD COSTING – Part 1 [SCPM – SET B – CA FINAL]

Sales Variance [Turnover or Value]:



Note:

BQ	=	Budgeted Sales Quantity
AQ	=	Actual Sales Quantity
RAQ	=	Revised Actual Sales Quantity
	=	Actual Quantity Sold Rewritten in Budgeted Proportion
SP	=	Standard Selling Price per Unit
AP	=	Actual Selling Price per Unit

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

Interpretation: Reasons for variance

Sales Price Variance

- Higher discounts given to customers in order to encourage bulk purchases.
- The effect of low price offers during a marketing campaign.
- Poor performance by sales personnel.
- Market conditions or economic conditions forcing changes in prices across the industry.

Sales Volume Variance

- Successful or unsuccessful direct selling efforts.
- Successful or unsuccessful marketing efforts (for example, the effects of an advertising campaign).
- Unexpected changes in customer preferences and buying patterns.
- Failure to satisfy demand due to production difficulties.
- Higher demand due to a cut in selling prices, or lower demand due to an increase in sales prices.

Part 5 – Reconciliation Statement

Budgeted Profit to Actual Profit (Absorption Costing)

Budgeted Profit (Budgeted Quantity × Standard Margin)				❑
Effect of Variances				
Material Cost Variance				
Material Price Variance		❑		
Material Usage Variance				
Material Mix Variance	❑			
Material Yield Variance	❑	❑	❑	
Labour Cost Variance				
Labour Rate Variance		❑		
Labour Idle Time Variance		❑		
Labour Efficiency Variance				
Labour Mix Variance	❑			
Labour Sub-Efficiency Variance	❑	❑	❑	
Variable Overhead Cost Variances				
Variable Overhead Expenditure Variance		❑		
Variable Overhead Efficiency Variance		❑	❑	
Fixed Overhead Cost Variances				
Fixed Overhead Expenditure Variance		❑		
Fixed Overhead Volume Variance				
Fixed Overhead Capacity Variance	❑			
Fixed Overhead Efficiency Variance	❑	❑	❑	
Sales Margin Variances (in terms of Profit)				
Sales Margin Price Variance		❑		
Sales Margin Volume Variance				
Sales Margin Mix Variance	❑			
Sales Margin Quantity Variance	❑	❑	❑	❑
Actual Profit				❑

Budgeted Profit to Actual Profit (Marginal Costing)

Budgeted Profit (Budgeted Quantity × Standard Margin)				❑
Effect of Variances				
Material Cost Variance				
Material Price Variance		❑		
Material Usage Variance				
Material Mix Variance	❑			
Material Yield Variance	❑	❑	❑	
Labour Cost Variance				
Labour Rate Variance		❑		
Labour Idle Time Variance		❑		
Labour Efficiency Variance				
Labour Mix Variance	❑			
Labour Sub-Efficiency Variance	❑	❑	❑	
Variable Overhead Cost Variances				
Variable Overhead Expenditure Variance		❑		
Variable Overhead Efficiency Variance		❑	❑	
Fixed Overhead Cost Variances				
Fixed Overhead Expenditure Variance		❑		
Fixed Overhead Volume Variance				
Fixed Overhead Capacity Variance	NA			
Fixed Overhead Efficiency Variance	NA	NA	❑	
Sales Contribution Variances				
Sales Contribution Price Variance		❑		
Sales Contribution Volume Variance				
Sales Contribution Mix Variance	❑			
Sales Contribution Quantity Variance	❑	❑	❑	❑
Actual Profit				❑

Standard Profit to Actual Profit (Absorption Costing)

Standard Profit (Actual Quantity × Standard Margin)				❑
Effect of Variances				
Material Cost Variance				
Material Price Variance		❑		
Material Usage Variance				
Material Mix Variance	❑			
Material Yield Variance	❑	❑	❑	
Labour Cost Variance				
Labour Rate Variance		❑		
Labour Idle Time Variance		❑		
Labour Efficiency Variance				
Labour Mix Variance	❑			
Labour Sub-Efficiency Variance	❑	❑	❑	
Variable Overhead Cost Variances				
Variable Overhead Expenditure Variance		❑		
Variable Overhead Efficiency Variance		❑	❑	
Fixed Overhead Cost Variances				
Fixed Overhead Expenditure Variance		❑		
Fixed Overhead Volume Variance				
Fixed Overhead Capacity Variance	❑			
Fixed Overhead Efficiency Variance	❑	❑	❑	
Sales Margin Variance (in terms of Profit)				
Sales Margin Price Variance		❑		
Sales Margin Volume Variance				
Sales Margin Mix Variance	NA			
Sales Margin Quantity Variance	NA	NA	❑	❑
Actual Profit				❑

Refer: Illustration 4 & 5.

Part 6 – Standard Costing and Modern Business Environment

Challenges:

1. Products in these environments tend not to be standardized.
2. Standard costs become outdated quickly.
3. Production is highly automated.
4. Modern environment often use ideal standards rather than current standards.
5. The emphasis is on continuous improvement, so pre-set standards become less useful.
6. Variance analysis may not give enough detail.
7. Variance reports may arrive too late to solve problems.

Part 7 – Investigation of Variances

Factors considered when investigating variances:

1. **Size**: Organizations can establish limits and the variances seen beyond those limits should be investigated further.
2. **Type of variances**: More importance to adverse variances.
3. **Cost**: Cost benefits analysis when conducting the investigation. [Worth?]
4. **Pattern in Variances**: Variance worsening over time need to be undertaken for investigation.
5. **Budgetary Process**: focus on re-evaluating budgetary process rather than investigation of variances, when it is uncontrollable and unrealistic.

Methods used for Investigating Variance:

1. Simple Rule of Thump Model: based on managerial judgments. [Limits or ratio of variance based.]
2. Statistical Decision Model: [Probability based]

1. **Strategy**: [Ref. Part 1]
    a. Peter F Drucker: A pattern of activities that seek to achieve the objectives of the organization and adapt its scope, resources and operations to environmental changes in the long term.
    b. Michael E Porter: deliberately choosing a different set of activities to deliver a unique mix of value.
2. **Shrinkflation**: a form of inflation that consists of reducing a product's size while maintaining its retail price; most common in FMCG, especially food and beverages. E. g. **Parle G from Parle Agro**
3. Strategy → guiding force for establishing performance indicators and parameters thereof.
4. In Balances Scorecard and performance pyramid, Strategy → focal point or starting point. [Chapter 9 – Detailed Analysis]
    a. Balanced Scorecard → Translate co.'s strategy into specific measurable objectives.
    b. Performance pyramids → integrates business strategic objectives with operational performance dimensions, considering the internal efficiency and external effectiveness.
5. Four aspects to be linked as part of business integration → [Ref. Part 2]
    a. People, Operations, Strategy and Technology [POST]
6. Orgs. And Dept. tries to maximize their own performance at the expense of the whole → lead to Sub-optimization.
    a. Solution: Business Integration.
7. Value Chain Analysis → E. g. Apple Inc. [Ref. Part 2]

Primary Activities	Source of Value
Inbound Logistics	Economies of Scale.
Operations	Outsourcing the manufacturing of components to locations with lower costs of resources, focusing on Core Competencies. [Tries to keep operations lean]
Outbound Logistics	Storage – minimum inventory in warehouses – due to short product life cycle. Apple Stores at high traffic locations | E-commerce Sale | Market Penetration.
Marketing and Sales	Consistently increasing sales through direct sales channels.
After Sale Services	Technically trained sales assistants; 14 calendar days return policy; iPhone trade in programs.

8. Hard S and Soft S means… [Ref. Part 2]
    a. Soft S – they are influenced by culture of the org., hence more difficult to describe and less tangible, relatively difficult for mgt. to make changes.

9. Linkage of VCA/Mckinsy's 7S and PM [Ref. Part 2]

Value Chain Analysis → Business Integration → Performance Management		
Identify Value Driver Activities and Linkage among different activities?	Activities shall be integrated by consolidating the linkage among 4 aspects [POST]	Better integration leads to more value perceived to consumer, therefore increase in margin.
McKinsey's 7S → Business Integration → Performance Management		
Identify whether all the 7S elements are properly aligned and supporting each other or not.	7S shall be integrated (through realignment) with help of Gap Analysis and Change Management	Better integration (realignment among 7S) leads to improved performance

10. Types of Organization Structures [Ref. Part 2]

Entrepreneurial	Line	Functional
Divisional	Matrix	Project
Network/ virtual		

11. Behavioral Aspect → 'what gets measures, gets done' [It has benefits and problems as well in PM] Ref. Part 5
12. E. g. Management style and culture affect PM. Ref. Part 5
    a. Maturity Phase → cost control is of importance.
    b. Growth Phase → Profit conscious style.
13. Some models used in predicting corporate failures.
    a. Z Score - Altman
    b. Beaver's Univariate model – uses t test to predict bankruptcy for a pair matched sample of firms. [Replaced by Altman Z score]
    c. ZETA – Bankruptcy classification model.
    d. Taffler and Tishaw's model → Then taffler adapted Z score to develop Performance Analysis Score [PAS]
    e. H Score – developed by Company Watch. [0-100 ranked percentile; threshold – 25; below - warning area]

14. Z score based models:

Coefficient Variables	Publicly Held Manufacturing Firms	Private Firms	Non Manufacturer	Emerging markets' entities	Performance Analysis Score (PAS or Tafflers' PAS)
-	NA	NA	NA	3.25	3.2
X1	1.2	0.717	6.56	6.56	12.18
X2	1.4	0.847	3.26	3.26	2.5
X3	3.3	3.107	6.72	6.72	-10.68
X4	0.6	0.420	1.05	1.05	0.029
X5	1.0	0.998	NA	NA	NA
Zone of Discrimination					
Distress Zone	<1.81	<1.23	<1.10	<1.10	The negative Z-score means that Co. is facing a potential bankruptcy.
Grey Zone	1.81 to 2.99	1.23 to 2.99	1.10 to 2.60	1.10 to 2.60	
Safe Zone	>2.99	>2.99	>2.60	>2.60	
Formula	1.2*X1 + 1.4*X2 + 3.3*X3 + 0.6*X4 + 1.02*X5				
X1	Working Capital/ Total Assets				PBT/ Current Assets
X2	Retained Earnings/ Total Assets				CA/ CL
X3	EBIT/ Total Assets				CL/ TA
X4	Market Value of Equity/ Total Liabilities	Book value of Equity/ Total Liabilities			No credit interval
X5	Sales/ Total Assets				

Module 2: Additional Reading: Chapter 9 [In addition to the Last Minute Summary Notes]

1. Objective V/s Goals
   a. Objective – it should always be possible to quantify.
   b. Goal – It cannot be quantified and are therefore open ended.
2. Org. need to use their core competence to exploit the CSFs → leads to Competitive advantage.
3. CSFs need to identify organization wide.
4. Ideal Performance Measure:

Supports	Communication and implementation of Corporate Strategy
Supports	Proper decision making.
Recognizes	Long term and short term objectives of the organization.
Incentive to	Manager to keep motivated to take decision in best interests of the overall company [Goal Congruence]
Includes only	Only factors that manager [of RC] can be held accountable.

5. ROI [E. g. of Divisional Performance Measure]
   a. It expresses divisional profit as a percentage of the assets employed in the division.
   b. It gives birth to situation of Sub-optimization, because of lack of goal congruence between divisions and organization as a whole.E. g.

	Division A	Division B
Return to a proposed Project	10%	7%
ROI of the Division [Current]	13%	5%
Average Cost of Capital	8%	

1. Division A would reject a possible return of 10% [Best Interest of Division A]
2. Division B would accept a possible return of 7% [Best Interest of Division B]
3. Company should accept only those projects ROI>COC.

6. Due to lack of Goal congruence in the case of ROI, RI [Residual Income] can be used. [Illustration 3]

ROI	1. Division managers are computing and comparing the return of the proposed investment with the existing rate of return of the respective division. 2. Relative measure. 3. Decision making – comparing existing with proposed earnings rates
RI	1. The minimum rate of return (CoC) is used to compute RI. 2. Absolute Measure. [Bigger division – larger RI] 3. Decision making - Contribution is compared with cost.

7. Instances of EVA Increase:
   Operating profit can be made to grow without employing more capital [Greater Efficiency]
   Additional capital invested in projects that return more than cost of obtaining new capital [Profitable Growth]
   Churn out capital from those investment/ projects which yield at a rate less than the cost of capital [liquidate unproductive capital]
8. While using NPV, sensitivity analysis shall be performed additionally to identify the Key factor for better control.
9. Why we need to consider Non-Financial measures as performance measures? Shortcomings of Financial Measures..
   a. Short Term orientation, historical in nature, internally focused only, window dressing.
10. Who classified performance measures into 4 business perspectives in Balance Scorecard Model?
    a. Kaplan and Norton
11. Balanced Scorecard need to be used internally successfully, then only it should be used as a basis for external reporting.
12. Balance Scorecard – Illustration 5.
13. Performance pyramid → Links strategy, operations and performance.
14. Performance pyramid is superior to balance scorecard in terms of hierarchy. [Senior Managers set objectives for each levels and then performance indicators will be tailored at each level]
15. Building Block Model – proposed by – Fitzgerald and Moon.
16. Triple Bottom Line – believes in Stakeholders approach rather than a shareholder approach.