

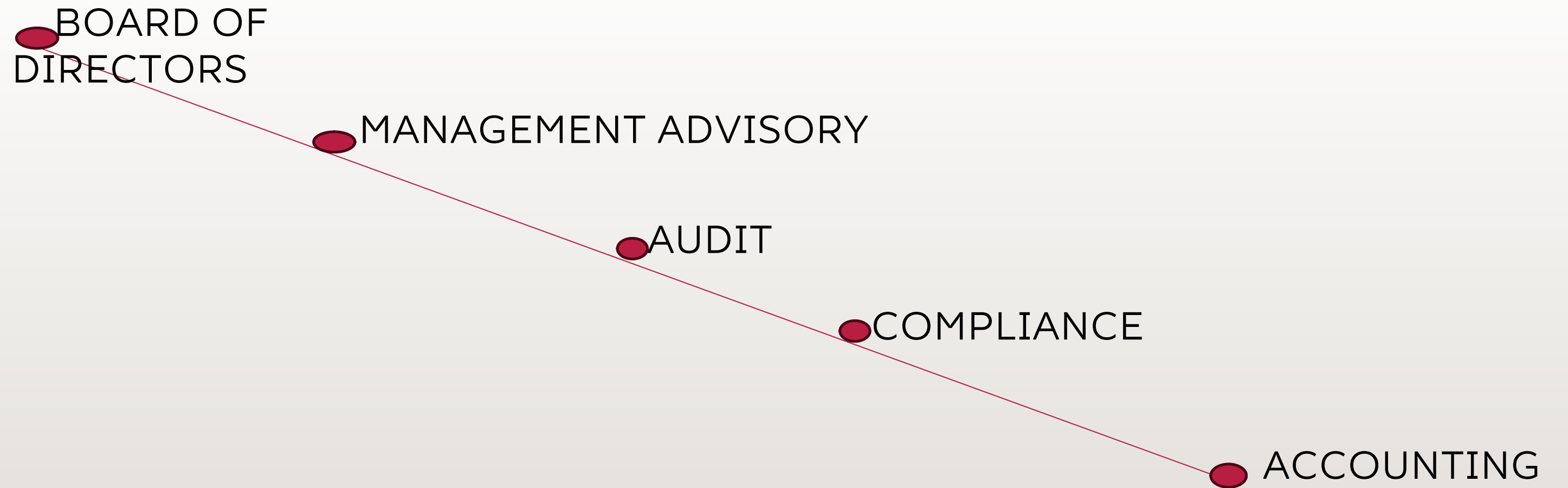
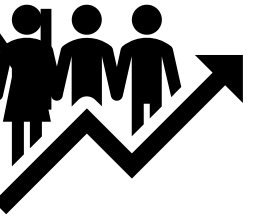


SIIC Practitioners' Conclave

DR CMA S SUBHASHINI
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THE WAY FORWARD OF THE PROFESSION

VALUE CHAIN IN A CORPORATE FUNCTION



CORPORATE SUPPORT FUNCTIONS

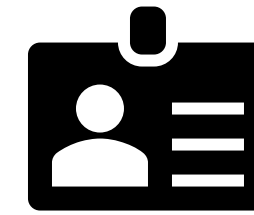
- Business Process Outsourcing
- KPO – Knowledge Partner
- Documentation
- Virtual CFO Services

COMPLIANCE SUPPORT SERVICES



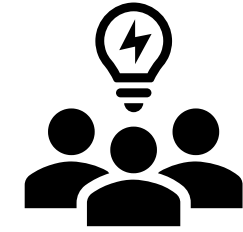
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- GST
 - INVENTORY VALUATION – Section 142(2A)(ii) of the Income Tax Act
 - SEGMENTATION REPORTING & CERTIFICATION FOR APA
 - ANTI DUMPING
 - LOCAL CONTENT CERTIFICATION
 - STOCK AUDITS
 - CONCURRENT AUDITS

AUDIT



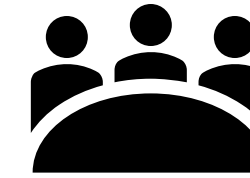
-
- COST AUDITS
 - INTERNAL AUDIT
 - STOCK AUDITS
 - CONCURRENT AUDITS
 - PROCESS AUDITS
 - SOCIAL AUDIT

MANAGEMENT ADVISORY SERVICES



- STRATEGY CONSULTING
- GROWTH CONSULTING
- BUSINESS ADVISORY
- SOP
- STRUCTURED PROCESS CONSULTING
- RISK ADVISORY
- MRC – MONITORING, REVIEW & CONTROL
- MANAGEMENT REVIEW MEETINGS (MRM)

BOARD POSITIONS



- INDEPENDENT DIRECTOR
- AUDIT COMMITTEE CHAIRMAN
- NOMINATION & REMUNERATION COMMITTEE (NRC)
- ADVISOR TO THE BOARD
- PROFESSIONAL DIRECTOR (ADDITIONAL DIRECTOR)





Sharing a few experiential insights....

Cost, Governance, and Value Addition in Infrastructure Industry by CMAs.

CMA Dr. Chivukula Vasudev
PhD FCMA ACS MBA XLRI'te

What's in it?

INFRASTRUCTURE INDUSTRY

**Key Success Factors
Industry Lense.
Unorganized Sectors
Economic Prosperity**

COST COMPETITIVENESS

**Uniqueness in the Sector
Internal Perspective
Activity Based
Business Strategy**

VALUE ADDITION

**Efficiency & Effectiveness
Value Chain
Learning Curve
Measurement**

GOVERNANCE

**Project Governance
CMAs Engagement
Cultural Mindset
Challenges and Our Role**

INFRASTRUCTURE INDUSTRY

▶ **KEY SUCCESS FACTORS:**

Sweet Order Book. Collaborative Efforts. cMa Tools.

Balanced Score Card, McKensy's 7-S, Competitor Analysis. JIT.

▶ **INDUSTRY LENSE:**

Highly Fragmented. Low Switching Costs. Labour Intensive

▶ **UNORGANIZED SECTOR:**

Greenfield, Team Building, Progress Uncertainties. Stakeholders

▶ **ECONOMIC PROSPERITY:**

Way forward. Reflect our Role.

Advantage CMAs....

Building Competence and Capability

Strategic Decision-making

Integration with Corporate Governance

CMAs, Our Leadership

COST COMPETITIVENESS

▶ **UNIQUENESS IN THE SECTOR:**

Known Revenue? Controls. Resources. Slack Strategy.

▶ **INTERNAL PERSPECTIVE:**

Cost Statement. Job Cost Report. Wake up Calls. SCAs

▶ **COST ELEMENTS:**

Activity Based Controls. Optimization. Business CMAs.

▶ **OPERATIONS AND CORPORATE STRATEGY:**

Low Cost High Impact. Supply Chain Team. Learning Curve. L1

VALUE ADDITION

▶ **EFFICIENCY AND EFFECTIVENESS:**

Slack Resources. Working Capital Optimization. Front Load .

▶ **VALUE CHAIN:**

Operationalize Value Chain. Institutionalize

▶ **LEARNING EXPERIENCE:**

Execution Capability. Timely Deliverables. Synergy. Vendor Base.

▶ **MEASUREMENT:**

Buyer's Dominance. Risk Management. Where to find Value?

GOVERNANCE ASPECTS

▶ **PROJECT GOVERNANCE:**

Transparency, Responsibility and Accountability
Integrate Stakeholders Relationship. CMAs Brand.

▶ **CMAs PROFESIONALISM:**

Custodians
Trustworthiness
Transactional Governance

▶ **CULTURAL MINDSET:**

Preface to Corporate Governance
Critical Thinking
Challenges and Our Role

LET'S GEAR-UP

- ▶ Interactive Numbers. Business specific Cost Behaviour.
- ▶ Substance for Executive Board Presence. RMS 2-2 framework.
- ▶ Specific Method for Deliverables. Value.
- ▶ Time bound and Quality consistency
- ▶ Relationship Capital. Build Trust.
- ▶ Develop and Develop people around.
- ▶ CMA. Predictive Ability. Extensive Tools
- ▶ Good Work Practices. Kaizen. Institutionalise FGFs
- ▶ SCAs for Professional Sustenance, amid AI ML environment, Block Chain, Crypto, Digital,
- ▶ eLife El.... Change Gears for Value Creation.



Thank you

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PHARMACEUTICALS VALUE ADDITION BY PCMA_s

Presented by
E. VIDYA SAGAR
PARTNER

SAGAR AND ASSOCIATES
COST ACCOUNTANTS

PHARMACEUTICALS

Active Pharma
Ingredients
(Bulk Drugs)

Pharmaceutical
Products
(Formulations)

CRAMS
(Contract Research
and Manufacturing
Services)

Vaccines

WHAT THEY SIGNIFY

- Active pharmaceutical ingredient (API) is the main ingredient in a Pharmaceutical Product that causes the desired effect.
- A Pharmaceutical Product is used for medicinal purpose and includes Tablets, Capsules, Injectables.
- CRAMS is outsourcing of drug development, manufacturing, and research services to third-parties.
- Vaccines helps the body's immune system by creating antibodies that fight disease.

Cost Reporting Approach is different for each of them.

COST RECORDS AND AUDIT RULES 2014, RULE 5 (3)

- The cost records shall be maintained in such manner so as to enable the company to exercise, as far as possible, control over the various operations and costs to **achieve optimum economies in utilization of resources** and these records shall also provide necessary data which is required to be furnished under these rules.

FOCUS AREAS

▪ Data Systems
▪ Operations
▪ Post Manufacturing
▪ Product Cost & Profitability
▪ Inventory Management
▪ Environment

DATA SYSTEMS

```
graph TD; A[DATA SYSTEMS] --> B[Large Pharma Companies]; A --> C[Medium and Small Pharma Companies]; B --> D["Well configured ERP systems (SAP, Oracle, etc)"]; C --> E["Other systems (Tally, Focus, etc)"];
```

Large
Pharma
Companies

Medium
and Small
Pharma
Companies

Well configured ERP
systems (SAP, Oracle,
etc)

Other systems (Tally,
Focus, etc)

DATA SYSTEMS

▪ SAP/ORACLE

- | |
|---|
| • Standard Reports for Material Consumptions, Movement, Batch/Order Records. |
| • Use of Excel for Customized Format/Calculations in the absence of Customized Z Reports. |
| • Activating the MLS(Material ledger in SAP) will result in accurate Product Cost . |
| • Configuration to get Actual Product Cost at Item Level. |

▪ Other Systems

- | |
|--------------------------|
| • Dump/Data from System. |
| • Excel Calculation. |

OPERATIONS (API)

▪ **Yield Analysis**

- | |
|--|
| • Key Raw Materials |
| • Stage Wise and Pharma Wise(Intermediates & FG) |
| • Batch Wise /Period Wise |

▪ **Capacities**

- | |
|--|
| • Block wise Capacities & Utilization |
| • Dedicated Blocks for Specific Products |
| • Capacities & Product Mix |

▪ **Reprocess**

- | |
|-----------------------|
| • Reprocessed Bathces |
|-----------------------|

OPERATIONS (API)

▪ Recoveries

- Second Crop
- Solvents

▪ Job Work

- Internal capacities for productive use
- Reconciliations & Yields

▪ Process Cycle time/Machine Hours

- Ensure that calculations are steady unless a process change or block change is made.

▪ Inter Unit Movement of Products

- Reconciliations

OPERATIONS (Formulations)

▪ **Yield Analysis**

- | |
|--|
| <ul style="list-style-type: none">• Stage Wise - Compression, Coating, Packing |
| <ul style="list-style-type: none">• Machine Wise Yields (Multiple Identical /Different Machines) |

▪ **Capacities**

- | |
|--|
| <ul style="list-style-type: none">• Module wise/ Machine wise |
| <ul style="list-style-type: none">• Dedicated Machines for Specific Products |

▪ **Loan Licensing**

- | |
|--|
| <ul style="list-style-type: none">• Reconciliations & Yields |
|--|

POST MANUFACTURING

- | |
|---|
| • Product Specific Export Incentive |
| • Product Specific Distribution (C & F) |
| • Product Specific Expenses (Commission, Bonus, etc) |
| • Product Samples |
| • Sales Returns |

PRODUCT COST & PROFITABILITY

- Segment Analysis

- | |
|--|
| • Regulated Markets and Low/Semi Regulated Market (RM & LRM) |
| • Geographical Profitability |
| • Customer Profitability |

- Unit Analysis

- | |
|----------------------------|
| • Unit/Profit Center Level |
| • Product Level |
| • Domestic & Export |

INVENTORY MANAGEMENT

- | |
|---------------|
| • Slow Moving |
| • Non-Moving |
| • Write offs |

ENVIRONMENTAL COSTS

- Indian companies have become more conscious of Environmental Sustainability.
- Neutralization of emissions that release greenhouse gases (GHGs) to become Net Zero.
- Net Zero is an internationally agreed-upon goal that refers to a state where the amount of greenhouse gases (GHGs) produced is balanced by the amount removed from the atmosphere.
- Many pharmaceutical companies in India are part of the Science Based Targets initiative (SBTi).
- The SBTi is a collaboration between the CDP(Carbon Disclosure Project), the United Nations Global Compact, the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF).
- The Science Based Targets initiative (SBTi) is a program that helps companies set science-based targets to reduce greenhouse gas (GHG) emissions.

Thank You

Role of Cost & Management Accountant in Health Care Sector

14th December, 2024



Acknowledgement

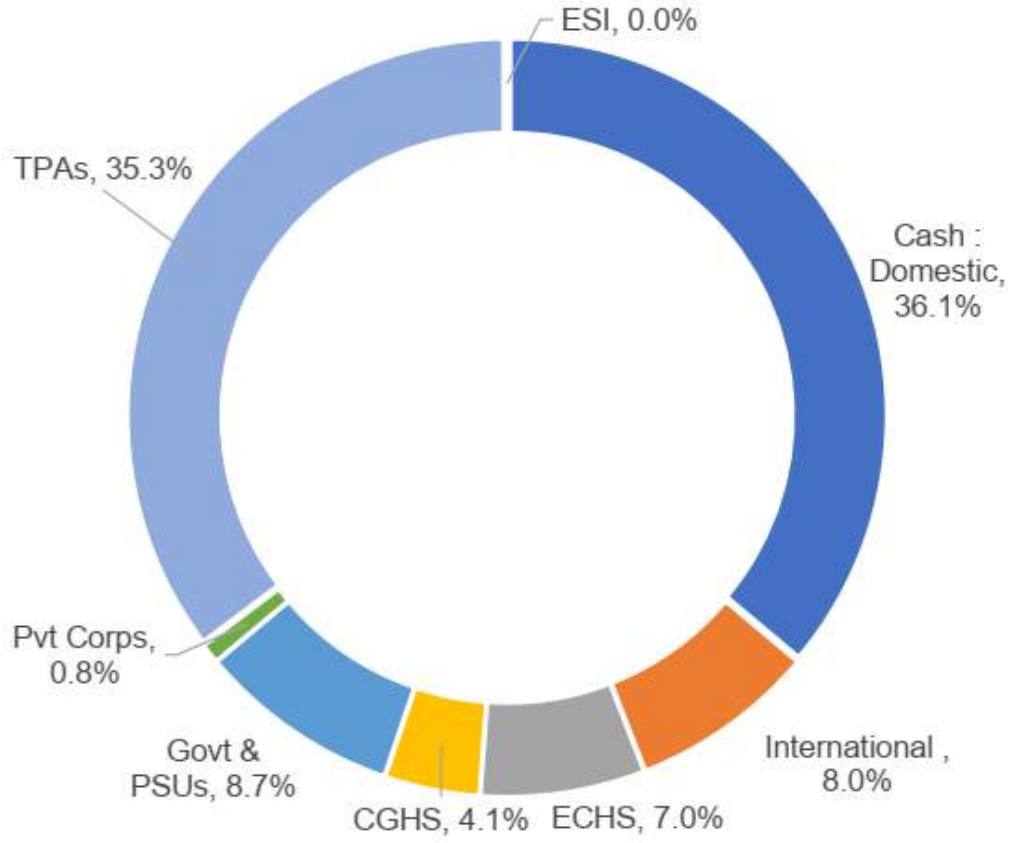
The author acknowledges that material & graphics, freely available through internet, have been used for this presentation with the objective of propagating knowledge.

General

- **While health is priceless, healthcare needs to be affordable**
- Healthcare is a unique industry
- Healthcare is a perishable service-it cannot be stored to be provided in future. Hence proper **utilisation** is of paramount importance
- Deals with life – human and other forms
- Healthcare has become one of India’s largest sector, both in terms of revenue and employment
- Healthcare comprises of **hospitals, diagnostic centres, clinical centres, test laboratories, telemedicine, medical tourism, medical services, etc.**
- Often the payor is 3rd party, Government or Employer or Insurer (Rs. 1 Lakh cr premium business in FY 24).

Fortis – Payor Profile

FY24



Payments by TPA / Insurers @35.3% is catching up with Domestic Patients @36.1%

PM-JAY

- Pradhan Mantri Jan Arogya Yojana or **PM-JAY**, for poor and vulnerable families, was launched in September, 2018. Approx. 35.68 cr cards issued till Oct '24.
- **Hospital Admissions** – 8.20 cr families, till Oct '24
- India has an estimated 70,000 hospitals, of which 44,000 are from the private sector.
- As of June '24, over 29,000 hospitals (41%) have empanelled under PM-JAY, including 12,625 (29%) private hospitals.
- PM-JAY coverage was expanded 2 months back to include **all senior citizens aged 70** and above for health coverage, regardless of their income. This expansion is set to benefit around 4.5 crore families, including 6 crore senior citizens. Approx. 25 lakh cards issued.

General

Service providers can be differentiated based on:

- Geographical Spread
Local, Regional, National, International
- Size
Few beds to 2,600 beds (Amrita Hospital, Faridabad)
- Specialisation
Some hospitals are niche players, some offer all under one roof
- Services Offered
Some may not have in-house CT scan or Pathlab or Chemist
- Ownership
Private, Government, Charitable, Corporate – Listed/Unlisted

Medical Tourism

- Presence of world-class hospitals and skilled medical professionals has strengthened India's position as a preferred destination for medical tourism.
- India is among the global leaders for international patients seeking advanced treatment.
- Treatment for major surgeries in India costs approximately 20% of that in developed countries.
- Medical Tourism in India has grown from 1.8 lakh patients in 2014 to 7.3 lakh in 2024.

M & A in Industry

- Rising FDI and private sector investment.
- FDI Inflows in hospitals and diagnostic centres stood at US\$ 10.26 billion between April 2000-March 2024. This was \$1.5 billion FDI in the FY 2024, highlighting the growing importance of hospitals in attracting foreign investment.
- KKR is close to acquiring a 60% stake in Healthcare Global Enterprises Ltd (HCG), worth ₹4,663.12 crore.
- Kotak Pre IPO Opportunities Fund is in advanced talks to acquire a 15% stake in Neuberg Diagnostics for approximately Rs 450 crore.
- Aster DM Healthcare and Quality Care India Ltd have entered into definitive agreements for a merger. This will create a network of 38 hospitals and over 10,150 beds across 27 cities.

'It is a capital mistake to theorise before one has data'

quote from Sherlock Holmes

Setting up Costing & MIS

- **Healthcare Information Management System (HIS/HIMS):**
This is the data collection mechanism. All data needs to get captured at microlevel. This is the backbone for costing and other operational as also strategic decisions.
- **Establishing the framework of Cost Accounting:**
Cost Centres
Cost Definition
Outputs
- **Costing:**
Calculation of Cost, Revenue and Margins for each Cost Centre, Service, Department, Location, etc.
- **Data Analytics:**
Decision making support

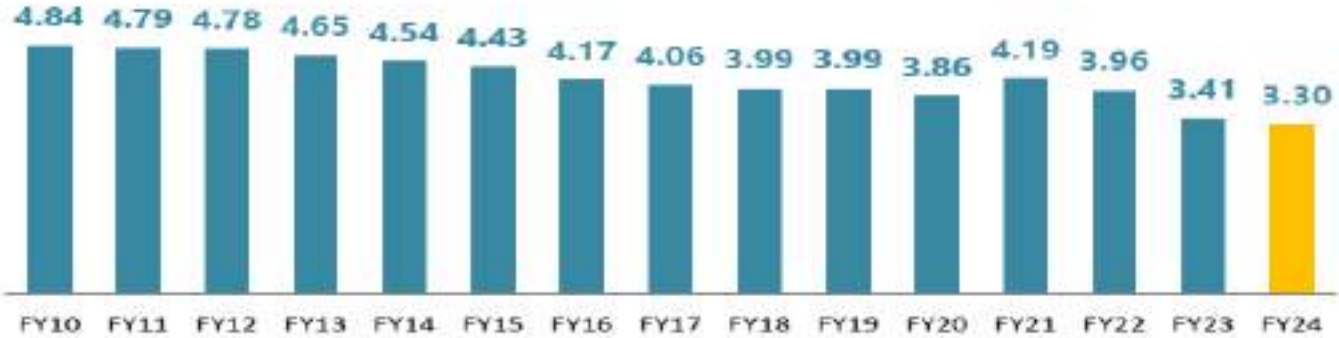


Setting up Costing & MIS

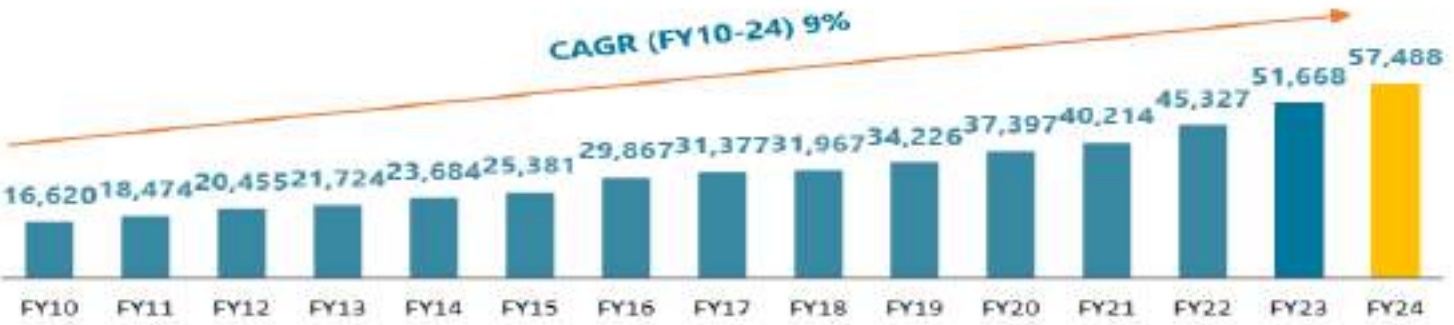
- To properly manage value, both revenue and cost must be measured at the patient level-**each patient is SKU**
- While it is easy to quantify revenue, the calculation of costs associated thereof is quite complex.
- The relevant cost is the total cost of all resources—clinical and administrative personnel, drugs and other supplies, devices, space, and equipment used during a patient’s treatment.
- Traditionally, hospitals have been using Average Length of Stay (**ALOS**) as performance yardstick, this is changing with advent of technology. **There is a move from ALOS to Average Revenue Per Occupied Bed (ARPOB). Soon this may change to Average Contribution Per Occupied Bed (ACPOB).**

ALOS vs ARPOB – Apollo Hospital

Average Length of Stay (Days)⁽²⁾



Average Revenue Per Occupied Bed⁽³⁾ ARPOB (₹/Day)



Operational Role

- Cost of each Service
- Cost of each Patient's **Cycle of Care**
 - Initial Consultation & Monitoring
 - Diagnosis
 - Treatment
 - Recovery & Rehabilitation
 - Monitoring
- Budgetary Control
- Statutory & other Reporting
- Supply Chain Management
Optimisation, Obsolescence, Revenue Leakage

Strategic Role

- Benchmarking – Internal & External
- NABH Accreditation – Impact on Cost
- Competitive Intelligence - Ethical
- Occupancy vs Consultant Payout
- In-house or Outsource - Diagnostics, Pathology, Pharmacy
- Service & Package Pricing – Tier based, Non-Flexible
- Bulk /Scheme Pricing & Profitability – Corporate, PMJAY
Impact on W-Cap, Occupancy, Discount, Payout
- Product Mix
- M & A, Valuation





GUIDANCE NOTE
ON
COST MANAGEMENT
IN
HEALTHCARE SECTOR

The Institute of Cost Accountants of India

(Statutory body under an Act of Parliament)

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Thank You

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Medical Services Depts

Revenue Generating Cost Centres

Operation Theatre
Cath Lab
Wards:
General
Twin
Single
Deluxe
ICU
ICCU
Paediatric
NICU
PICU
Daycare

OPD & Investigations
Chemotherapy
Physiotherapy
Dentistry
Ophthalmology
Dialysis
Heath Check-up
Lithotripsy
X Ray
CT Scan
MRI
Sonography

OPD & Investigations
Pathology
Chemotherapy
Endoscopy
Neuro Lab

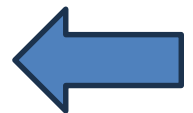
This list is not exhaustive

Support Services

Medical Support Depts
Support for Revenue Generating Cost Centres
Casualty & Emergency
Central Sterile Supply Management (CSSD)
Biomedical Waste Mgmt
Medical Records Room
Infection Control Room
Sample Collection Room
Patient Catering
Quality Control

Non Medical Depts
Admin and Non Technical Cost Centres
Administration
Accounts
Costing & MIS
IT Department
Marketing
Human Resources
Electricity & DG Set
Maintenance

This list is not exhaustive



Benchmarking - Fortis Hospitals

FY 24 vs FY 23

EBITDA	No. of Facilities	Revenue Contribution	Operational Beds	ARPOB (INR Cr)	Occupancy
20% - 25%	8	62.2%	1,998	2.56	72%
15% - 20%	5	13.4%	745	1.76	62%
10% - 15%	3	13.8%	640	1.89	70%
<10%	5	8.1%	551	1.81	50%

EBITDA	No. of Facilities	Revenue Contribution	Operational Beds	ARPOB (INR Cr)	Occupancy
20% - 25%	6	52.4%	1,609	2.47	70%
15% - 20%	7	21.4%	975	1.62	72%
10% - 15%	2	5.1%	246	1.55	72%
<10%	7	20.3%	1,145	1.70	57%



NABH Accreditation

- **National Accreditation Board for Hospitals & Healthcare Providers (NABH)** is a constituent board of Quality Council of India, set up to establish and operate accreditation programme for healthcare organisations.
- It is a comprehensive process that evaluates a hospital on infrastructure, staffing, clinical services, infection control, patient rights, and quality management. The hospital must meet **minimum space requirements**, ensure **appropriate staff numbers**, maintain **patient safety**, and demonstrate a **commitment to quality improvement**. Hospitals that successfully meet these standards gain NABH accreditation, which **signifies their dedication to providing high-quality care**.

NABH Accreditation

- **Minimum Space per Bed (for a hospital with 100 beds):** : The space requirement for **inpatient beds** is typically around **120-150 sq. ft. per bed**, including the bed area, bathroom, and other associated spaces like storage for medical equipment.
- **Nurse-to-Patient Ratio:** The **nurse-to-patient ratio** is **critical** and varies based on patients' needs:
ICU/CCU units require a ratio of **1:1 to 1:2** (nurse to patient).
General wards typically maintain a ratio of **1:4 to 1:6**.
Minimum Staffing for 100-bed hospital: At least **50-60 nurses** are required to ensure proper care across multiple shifts.
- Similarly, **National Accreditation Board for Testing and Calibration Laboratories (NABL)** offers accreditation services to all testing including medical and calibration laboratories.



***SIRC
PRACTITIONERS'
CONCLAVE***

14th December 2024

Technical Session-3

The Way forward for the Profession

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Agenda

*Rao, Murthy & Associates
Cost Accountants*



**Leveraging
Artificial Intelligence (AI) in
Cost Management**



**Inventory Valuation Under IT
Act, 1961**



Avenues for PCMA

Leveraging Artificial Intelligence (AI) in Cost Management

*Rao, Murthy & Associates
Cost Accountants*

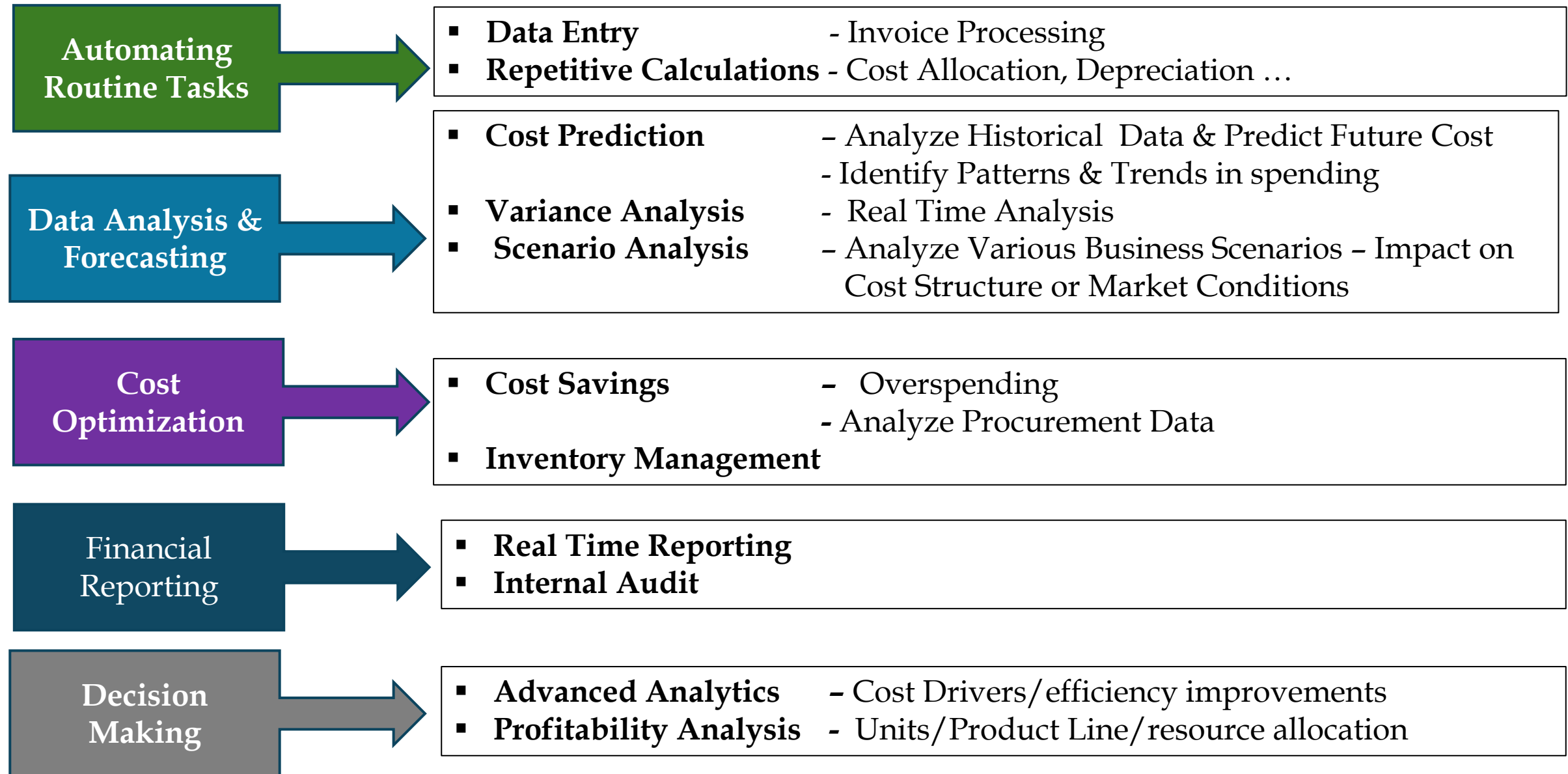
AI is no longer a futuristic concept—it is a present reality reshaping how we operate.

AI offers:

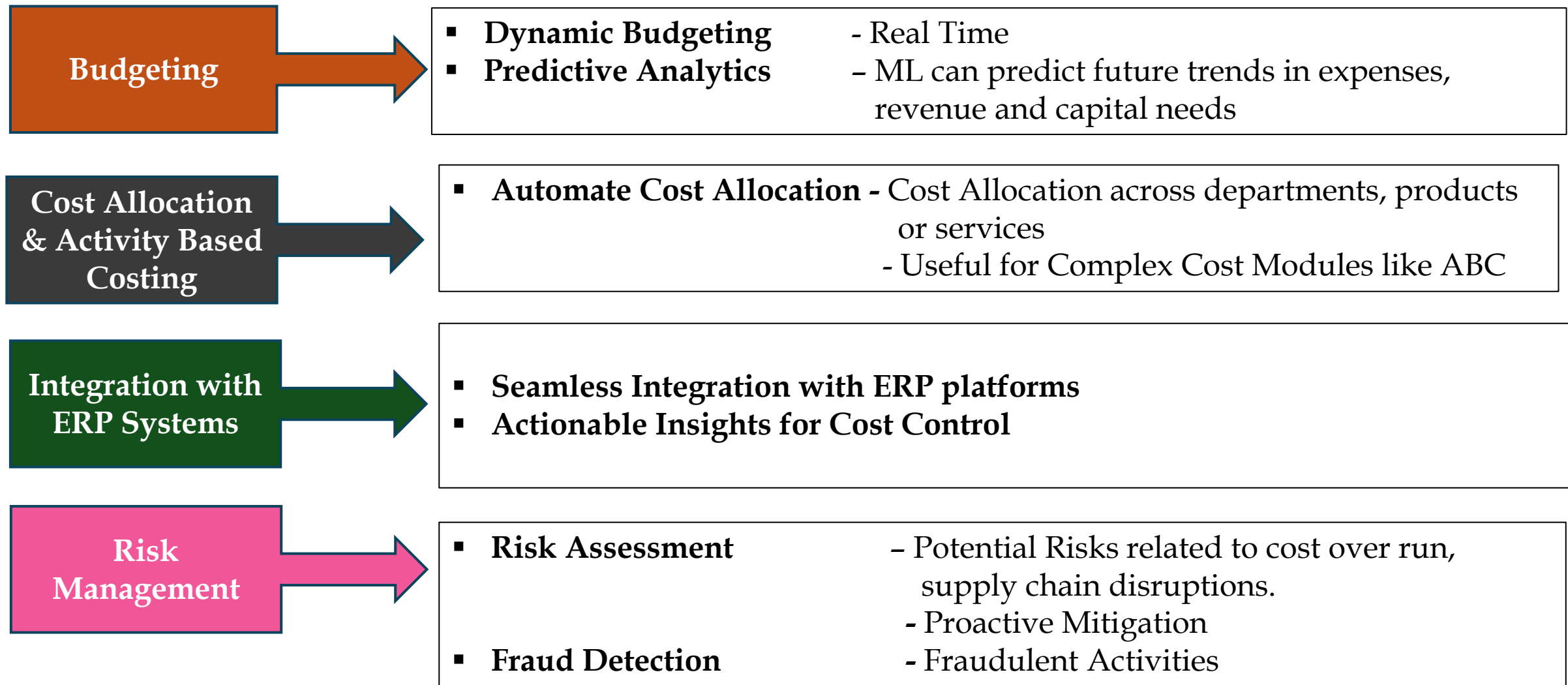
- 1. Precision and Speed:** From automating routine tasks to real-time financial analysis, AI significantly enhances accuracy and efficiency.
- 2. Strategic Insights:** Predictive analytics powered by AI equips us to identify cost-saving opportunities and manage risks proactively.
- 3. Operational Excellence:** With AI integrated into ERP systems, processes like inventory tracking and cost allocation are streamlined, allowing businesses to focus on value creation.

Incorporating **AI** is **not** merely an **upgrade** but a **transformative** shift, empowering us to deliver actionable insights to our stakeholders

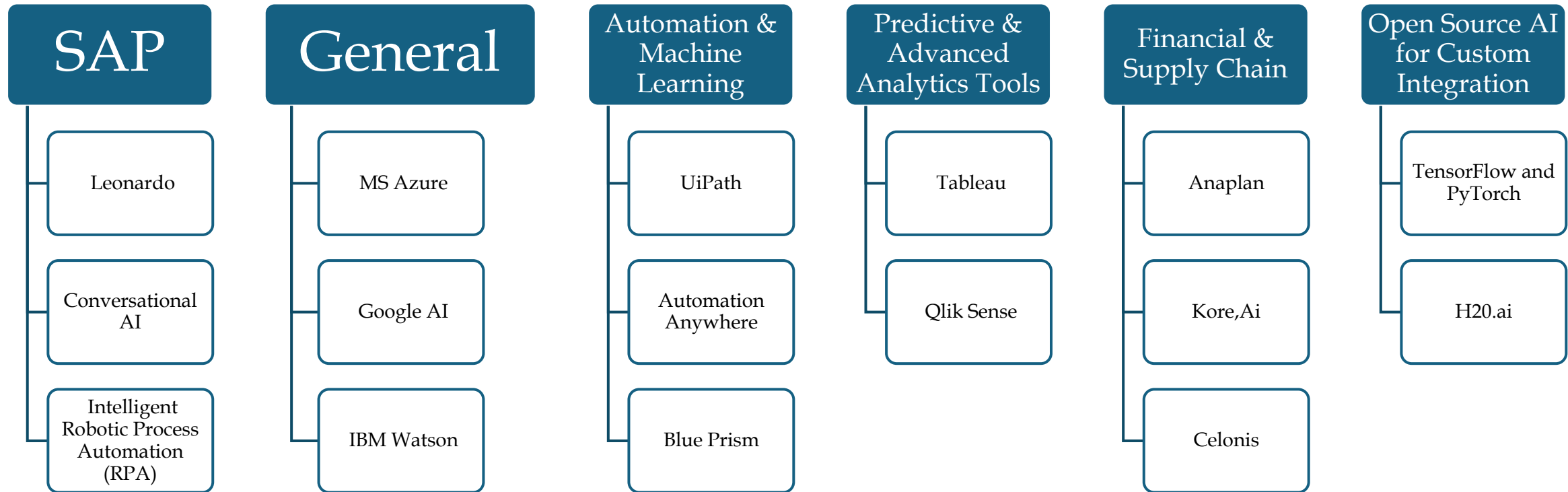
Leveraging AI in Cost Management



Leveraging AI in Cost Management



AI - ERP Integration Tools Overview



Inventory Valuation Under IT Act, 1961

Inventory valuation is essential for computing taxable income under the Income Tax Act, 1961. Governed by **Section 145A** and **ICDS II, ICDS III & ICDS VIII**

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Cost Accountants

Section 142(2A) of the Income Tax Act, 1961

Overview:

Section 142(2A) pertains to the direction by an **Assessing Officer (AO)** to conduct a *special audit* of the accounts of a taxpayer during an income tax assessment. This provision is invoked if the AO deems that the complexity in the taxpayer's accounts or significant doubts about the accuracy of the records justify a deeper examination by an independent auditor.

Key Features:

1. **Complexity or Doubt:** The AO must have a reason to believe that the accounts are complex or lack reliability.
2. **Prior Approval:** Before ordering a special audit, the AO must obtain prior approval from the Principal Chief Commissioner or Chief Commissioner.
3. **Auditor's Appointment:** The auditor (PCMA) is appointed by the AO, not the taxpayer.
4. **Cost:** The expenses of the audit are borne by the Income Tax Department.
5. **Timeframe:** The audit must be completed within the specified timeframe, which can be extended by the AO.
6. **Opportunity to Respond:** The taxpayer must be given a chance to respond before the direction is issued.

Major Deviations between ICDS II & AS 2

Applicability	Applicable only for tax computation.	Applicable for general-purpose financial statements.
Valuation Method	Cost or NRV, whichever is lower.	Same as ICDS II, but with more detailed guidelines.
Exclusions	Does not exclude machinery spares and standby items.	Excludes spare parts and items used in fixed assets.
Service Providers	Covers valuation of inventory for service providers.	Does not explicitly cover service providers.
Cost of Borrowing	Interest and borrowing costs not included.	Borrowing costs can be capitalized under certain conditions.
Change in Method	Prior year adjustment not allowed for changes in method.	Retrospective adjustments required for comparability.
Disclosure	Limited disclosure requirements.	Extensive disclosure requirements under AS 2.

ICDS III: Construction Contracts

- **Scope:** Applies to revenue recognition and cost allocation in construction contracts (both fixed-price and cost-plus).
- **Key Points:**
 - Revenue and costs are recognized using the *Percentage of Completion Method (POCM)*.
 - Retention money is included in contract revenue.
 - Losses are recognized when foreseeable, but profit is deferred until completion milestones are met.
 - Contract costs include direct costs, allocable indirect costs, and borrowing costs (if applicable).
- **Exclusion:** Not applicable to real estate projects or service contracts.

ICDS VIII: Securities

- **Scope:** Deals with the valuation of securities held as stock-in-trade.
- **Key Points:**
 - Securities are valued at *cost or net realizable value (NRV), whichever is lower*, category-wise (e.g., shares, debentures, etc.).
 - Cost includes purchase price and transaction costs.
 - FIFO or weighted average method is used for determining cost.
 - Fair value changes are not recognized unless allowed by specific provisions of the Income Tax Act.

Exclusion: Not applicable to securities held as capital assets.

FORM 6D Expectations

1. Description of Inventory:

- Types of inventory held by the taxpayer (raw materials, work-in-progress, finished goods, stores, and consumables).
- Provides a detailed classification to assess the valuation accuracy.

2. Method of Valuation:

- The method adopted by the taxpayer (e.g., *Cost or Net Realizable Value (NRV), whichever is lower*).
- Auditor verifies compliance with the Income Tax Act and ICDS II (Income Computation and Disclosure Standards).

3. Consistency in Valuation Method:

- Examination of whether the method of inventory valuation has been consistently applied over different financial periods.
- Auditor comments on deviations and their impact on income computation.

4. Compliance with ICDS II:

- Verification of adherence to ICDS II guidelines for inventory valuation:
 - Exclusion of abnormal costs, such as material wastage, from cost valuation.
 - Treatment of opening and closing inventory as per ICDS.
- Highlights deviations, if any, from prescribed standards.

FORM 6D Expectations

5. Adjustment for Tax Purposes:

- Reconciliation of inventory valuation as per the taxpayer's books with the method prescribed under the Income Tax Act.
- Auditor recommends adjustments for tax computation to address any discrepancies.

6. Inventory Write-offs or Obsolescence:

- Examination of inventory write-offs or provisions for obsolescence.
- Auditor assesses whether such adjustments are justified and in compliance with tax laws.

7. Impact on Income:

- Analysis of how inventory valuation impacts the declared income.
- Auditor quantifies discrepancies arising due to incorrect or inconsistent valuation.

8. Observations and Recommendations:

- Auditor's remarks on deficiencies or inaccuracies in inventory valuation.
- Suggestions for necessary adjustments or corrections to ensure accurate income computation.

9. Supporting Schedules:

- Detailed schedules related to inventory, including movement analysis, costing details, and NRV calculations.
- Provides evidence for any recommended adjustments.

Unlocking Opportunities

*Rao, Murthy & Associates
Cost Accountants*

- Advisory Services to Taxpayers
- Inventory Valuation and Cost Analysis
- Training and Consultation for Businesses
- Litigation and Representation Support
- Certification and Compliance Reviews
- Industry-Specific Expertise

Avenues for PCMA

Rao, Murthy & Associates
Cost Accountants

- The role of cost accountants is expanding from traditional costing to include strategic business areas.
- To remain relevant, must:
 - Embrace and adopt emerging technologies.
 - Acquire and develop new, relevant skills.
 - Adapt to rapidly changing business environments.

CMAs' analytical expertise will play a crucial role in helping organizations achieve cost efficiency and drive sustainable growth.

Avenues for PCMA

SI No	Area	Opportunity	What to Focus on
1	Strategic Decision Support	CMA's are increasingly being seen as strategic partners in decision-making, providing insights that help guide long-term financial planning. This involves budgeting, forecasting, and cost analysis for new product lines or market expansions.	Develop strong skills in strategic cost management and work on gaining proficiency in forecasting techniques , which are critical for contributing to strategic decision-making
2	Adoption of Lean and Agile Practices	Many businesses are adopting Lean and Agile methodologies to increase efficiency and reduce waste. CMA's play a crucial role in evaluating and implementing cost-saving measures within these frameworks	Gain expertise in Lean Six Sigma and Agile financial planning to help companies optimize costs while maintaining flexibility in operations
3	Technology Implementation in Cost Systems	The increasing adoption of cloud-based ERP systems, AI-powered tools, and blockchain in finance opens up opportunities for CMA's to manage cost tracking, forecasting, and analysis in innovative ways.	Familiarize yourself with industry-leading software solutions like SAP, Oracle, or QuickBooks Online and understand how these systems can automate cost allocation and provide real-time cost insights
4	Data Analytics and Automation Integration	The growing use of big data and automation in financial management creates new roles for CMA's who can analyse large datasets and apply automation tools to cost control and management	Learning data analytics tools , such as Power BI, Tableau, or Excel's advanced functions, and automating cost reporting and forecasting processes.
5	Business Responsibility and Sustainability Reporting (BRSR)	SEBI-mandated BRSR, CMA's play a pivotal role in measuring and reporting costs associated with sustainability initiatives	Develop expertise in ESG frameworks , carbon accounting, and sustainability cost management. Certification Courses

Avenues for PCMA

SI No	Area	Opportunity	What to Focus on
6	Cost Accounting in the Gig Economy	With the rise of the gig economy, businesses increasingly rely on freelancers and contract workers. Cost accountants can help organizations track and manage the costs associated with non-traditional labour arrangements	Familiarize yourself with the costs associated with gig work, including contractor payments, taxation issues, and employee benefits to manage labour costs effectively
7	Government Regulations and Compliance	New financial regulations and standards, especially those around tax reform, transfer pricing, and cost allocation in multinational operations , can create demand for CMA's who specialize in compliance.	Stay updated on evolving accounting standards, tax laws, and compliance regulations. Consider earning certifications related to international accounting standards (IFRS) or taxation
8	Healthcare and Pharmaceutical Industry	Rising healthcare demand, along with growth in pharma and biotech sectors, provides avenues for cost accountants to manage supply chain costs, pricing, and compliance	Specialize in healthcare cost accounting , focusing on operational efficiency and compliance with healthcare regulations.
9	Cost Accounting in Mergers & Acquisitions (M&A)	In times of business consolidation, cost accountants play a key role in evaluating the financial health of merging organizations, assessing synergies, and recommending cost-reduction strategies.	Specialize in M&A financial analysis and gain skills in due diligence to help businesses assess costs during mergers or acquisitions.
10	GST and Taxation Advisory	The complexities of India's Goods and Services Tax (GST) offer vast consulting opportunities for CMA's to manage GST compliance, optimize tax structures, and handle audits	Stay updated with GST laws and amendments while pursuing certifications in indirect taxation.

Avenues for PCMA

SI No	Area	Opportunity	What to Focus on
11	Role in Startups and MSMEs	Startups and MSMEs, the backbone of India's economy, require CMA's for financial modelling, cost optimization, and resource allocation.	Develop expertise in startup funding, cost structuring, and financial modelling
12	Role in Infrastructure Projects	Government projects like Smart Cities, Make in India, and Digital India require cost accountants for project cost management, performance audits, and cost-benefit analysis	Understand public-sector cost systems and gain experience in large-scale project management
13	Forensic and Fraud Detection Services	Increasing regulatory scrutiny from authorities like SEBI and RBI has created demand for forensic accounting services to detect financial discrepancies.	Pursue certifications in forensic accounting and develop expertise in fraud detection techniques
14	Export and International Trade Advisory	India's growing export sectors need cost accountants to manage export pricing, compliance, and cost efficiency in international trade.	Understand export regulations, international trade finance, and foreign exchange management
15	E-commerce and Retail Sector	India's booming e-commerce sector requires cost accountants to handle supply chain costs, pricing strategies, and inventory management	Familiarize yourself with e-commerce taxation, supply chain cost analysis, and online retail dynamics
16	Cost Management in Renewable Energy and Power Sector	With India's push towards renewable energy, cost accountants can help manage costs for solar, wind, and green hydrogen projects	Understand the economics of renewable energy and government subsidy structures

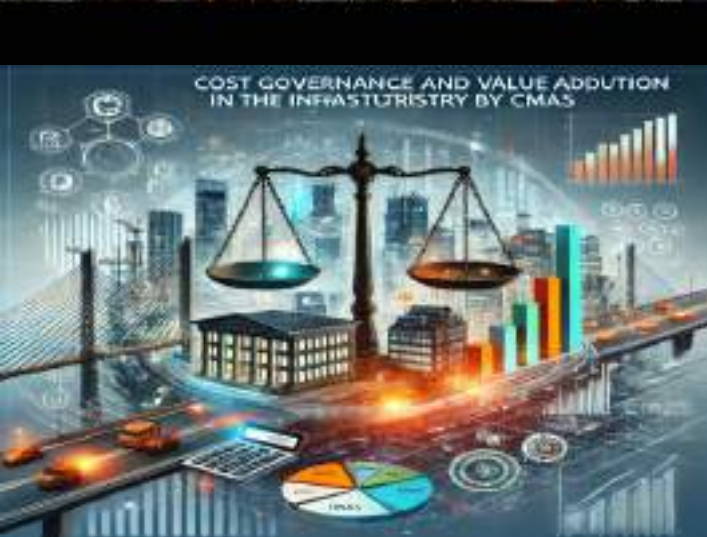


Rao, Murthy & Associates
Cost Accountants

Thank You



Good Morning



COST GOVERNANCE AND VALUE ADDITION IN THE INFRASTRUCTURE INDUSTRY BY CMAs

CMA U. Lakshmana Rao

M.Com., FCMA, MIMA

Practicing Cost Accountant,
Visakhapatnam

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Understanding Infrastructure: The Foundation of Society

Definition

Basic physical and organizational structures and facilities needed for the operation of a society or enterprise

Importance

It is the foundation that supports the functioning of a community or organization





Various Types Infrastructure-GRIPPERS



Green Infrastructure

Roof gardens, green building, etc



Roads and Highways

National Highways and rural roads



Irrigation

Dams and canals



Ports and Airports

Sea ports and Airports



Power and Energy

Gas pipelines, power plants



Education, Health, Sanitation

Schools, colleges and hospitals



Railways and Metro

Railways and metro lines



Space, Telecom, Defence

Satellites, rockets, space missions etc,

- **G**reen Infrastructure builds the future pride
- **R**oads and Highways, connecting India far and wide
- **I**rrigation, makes fields greenery more and more
- **P**orts and Airports, flying trade near and far
- **P**ower and Energy fuel the game,
- **E**ducation, Health, and Sanitary loud the nation's fame
- **R**ailways and Metro, makes the travel seamless
- **S**pace, Telecommunication, and defense are sectors of prominence
- **CMA's** competence adds value with perfect sense



Infrastructure Project Cycle and Financing Models in India



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Infrastructure Project Cycle Overview

- 1 **P**lanning and Feasibility
Identifying project needs, conducting feasibility studies, and developing plans.
- 2 **D**esign and Engineering
Creating detailed designs and engineering plans.
- 3 **P**rocurement
Acquiring necessary resources, materials, equipment, and contractors.
- 4 **C**onstruction
Actual building or implementation of the project.
- 5 **C**ommissioning and Handover
Testing, commissioning, and transferring to client or end-users.
- 6 **O**peration and Maintenance
Ensuring the infrastructure functions as intended.
- 7 **D**ecommissioning
Safely dismantling or repurposing at the end of its life.



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Publicly Funded Infrastructure Models

Budgetary Allocation

Projects funded directly through the government's budget, supported by taxes and public revenues. Example: Rural roads under the Pradhan Mantri Gram Sadak Yojana (PMGSY).

Grants and Development Assistance

Financial aid or grants from multilateral organizations or foreign governments. Example: Metro Rail Projects supported by JICA (Japan International Cooperation Agency).



Public-Private Partnership (PPP) Models



Build-Operate-Transfer (BOT)

Private entities build and operate the project for a fixed period before transferring it to the government. Example: Some Expressways.



Build-Own-Operate-Transfer (BOOT)

Similar to BOT, but private entities retain ownership during the operation period. Example: Water treatment plants, waste management projects.



Build-Own-Operate (BOO)

Private entities retain ownership indefinitely and earn revenue through operations. Example: Renewable energy projects by private companies.

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More PPP Models



Operate-Maintain-Transfer (OMT)

Private entities operate and maintain an existing infrastructure asset before transferring it back. Example: Highway toll collection projects under NHAI.



Hybrid Annuity Model (HAM)

Government provides a percentage of the project cost upfront, with guaranteed annuity payments. Example: National Highways Development Project (NHDP).



Private Financing Models

Fully Private Projects

Entirely financed and operated by private entities without government involvement. Example: Private industrial parks.

Private Equity and Venture Capital

Investments by private equity firms and venture capitalists in specific infrastructure sectors. Example: Investments in telecom infrastructure by companies like Bharti Infratel.

User-Pay Models

Toll-Based BOT

Revenue is generated through tolls or user fees, collected by private operators. Example: Mumbai-Pune Expressway.

Concession Agreements

Private operators manage and earn revenue from infrastructure under a government-conferred concession. Example: Privatization of Indian airports and seaports.

Asset Monetization and Recycling

Leasing existing infrastructure assets to private entities for upfront payments, which are used to fund new projects.





Green Financing Models

Green Bonds

Bonds issued to raise funds for environmentally sustainable projects. Example: Renewable energy projects by NTPC and SECI.



Challenges of Infrastructure Industry-COSTLIER

Z

Capital

Infrastructure projects require high capital outlay, making them capital intensive.

☆

Operational

Infrastructure projects demand high operational efficiency.

✍

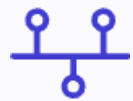
Stakeholders

Managing multiple stakeholders can be challenging.

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Challenges - COSTLIER (Continued)



Timelines

Longer project timelines often lead to cost overruns and schedule delays.



Labour

Projects are labour intensive, with challenges in availability and cost of labour.



Innovation and Technology

Adapting to latest changes and technology can be challenging.

Challenges- COSTLIER



Economic Viability

Ensuring economic viability throughout the project life cycle is crucial.

Regulatory and Environmental Costs

Compliance with regulations and addressing environmental challenges add to project costs.



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What is Cost Governance?

Cost Governance refers to a mechanism, strategy, or system implemented within an organization to monitor, regulate, and control costs to ensure financial efficiency, sustainability, and alignment with organizational and /or social objectives.

It ensures that financial resources are utilized efficiently, aligns expenditures with organizational goals, and promotes accountability and transparency in cost management.

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Key Objectives of Cost Governance – **ACT BEST**

1 **A**ccountability

Establishing clear roles and responsibilities for cost management.

2 **C**ost Control

Monitoring and managing expenses to prevent overspending.

3 **T**ransparency

Providing clear visibility into where and how resources are being spent.



More Key Objectives – **ACT BEST** (Continued)

4 **B**udget Alignment

Ensuring spending aligns with approved budgets and organizational priorities.

5 **E**fficiency

Optimizing the use of resources to deliver maximum value at minimum cost.

6 **S**ustainability

Keeping in view the long-term sustainability of projects.

7 **T**echnological

Embracing latest technologies to optimize benefits of cost governance.



Cost Governance Framework

- ❖ Governance Structure
- ❖ Policies and Standards
- ❖ Cost Management Processes
- ❖ Technology and Tools
- ❖ Metrics and KPIs
- ❖ Risk Management
- ❖ Stakeholder Engagement
- ❖ Continuous Improvement (KAIZEN)



Cost Governance Framework: Governance Structure

Executive Oversight

A steering committee of project managers, finance officers, and senior executives to align cost management with strategic goals.

Dedicated Cost Controllers

Assign roles to cost controllers for individual projects or portfolios.

Project-Based Accountability

Establish project-specific financial accountability with designated cost owners.



Cost Governance Framework: Policies and Standards



Procurement Policies

Guidelines for sourcing materials and services at optimal cost while ensuring quality and compliance.



Budgeting Standards

Establish standardized templates and processes for cost estimation.



Regulatory Compliance

Adherence to industry-specific regulations such as environmental and safety standards that impact costs.

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Cost Management Processes: Cost Estimation

Initial Estimates

Detailed initial estimates using benchmarks, historical data, and market analysis.

Regular Updates

Regular updates based on design changes or market conditions.

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Cost Management Processes: Cost Tracking

Direct and Indirect Costs

Track direct (materials, labor) and indirect costs (overheads).

Real-time Monitoring

Implement systems for monitoring cost deviations in real-time.



Cost Management Processes: Change Management and Value Engineering

Change Management

A formalized process for approving and documenting cost implications of design changes or delays.



Value Engineering

Regular reviews of project designs to identify cost-saving opportunities without compromising quality.

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Technology and Tools for Cost Governance

Building Information Modelling (BIM)

Use BIM to simulate project scenarios, identify potential overruns, and optimize designs for cost efficiency.



ERP Systems

Integrate project management and financial systems for seamless data sharing and reporting.



Real-Time Dashboards

Provide stakeholders with live updates on cost metrics, forecasts, and variances.

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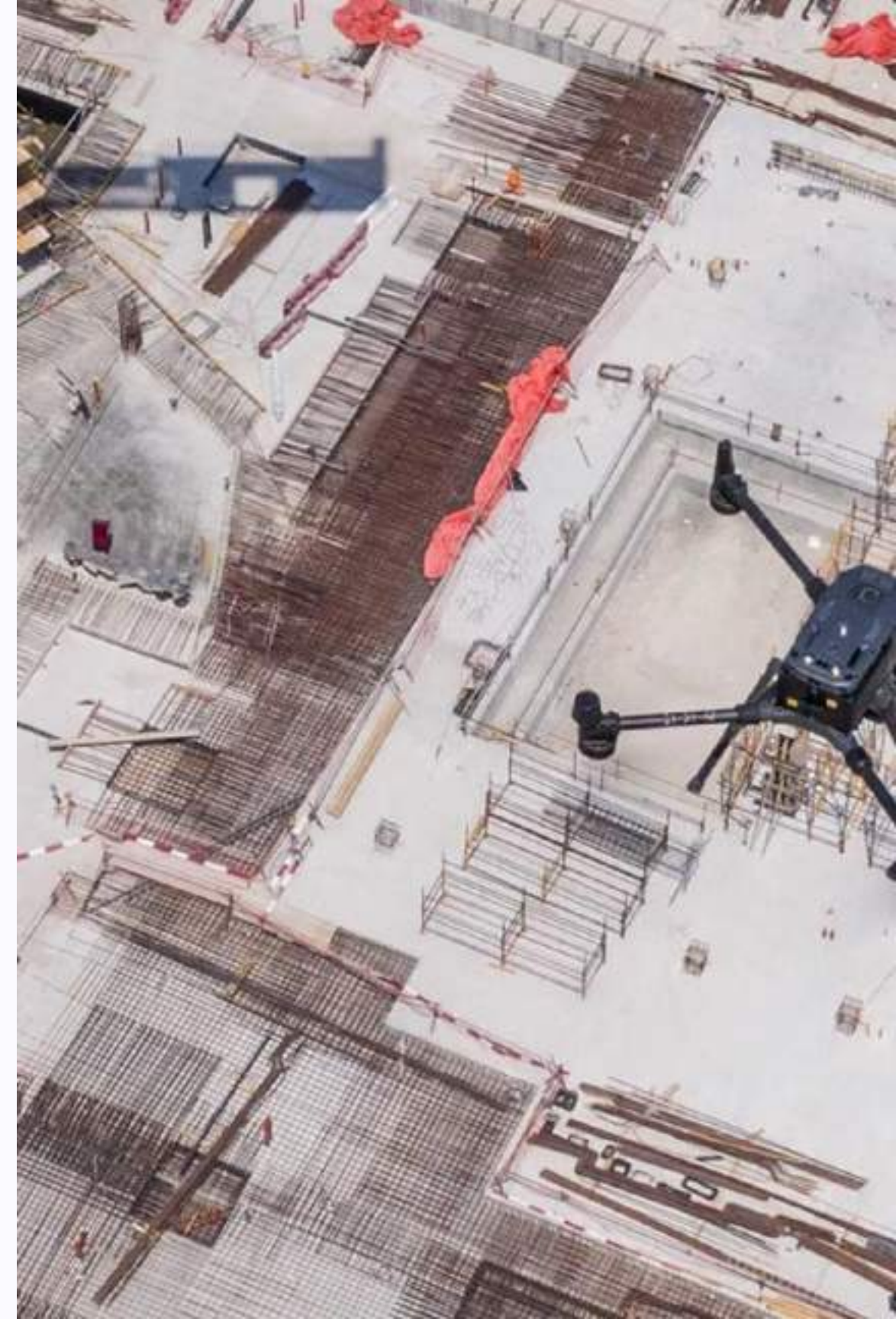
Automation in Cost Governance

Drones and IoT Devices

Use drones or IoT devices to monitor site progress, reducing manual inspection costs.

Predictive Analytics and AI Tools

Forecasting cost patterns and identifying risks.
Machine learning for cost optimization.
Insights into cost drivers and efficiency opportunities.



Dashboard

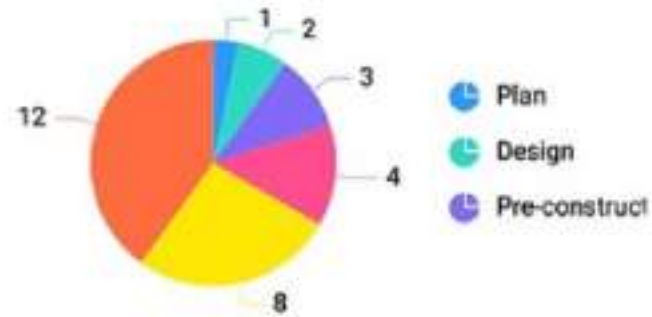
Project Type : Engineering & Non-Residential

Project Head: Project Manager_A

Project Start Date : 1/13/2018 12:00 AM

100% Utilized Budget Amt. Total E

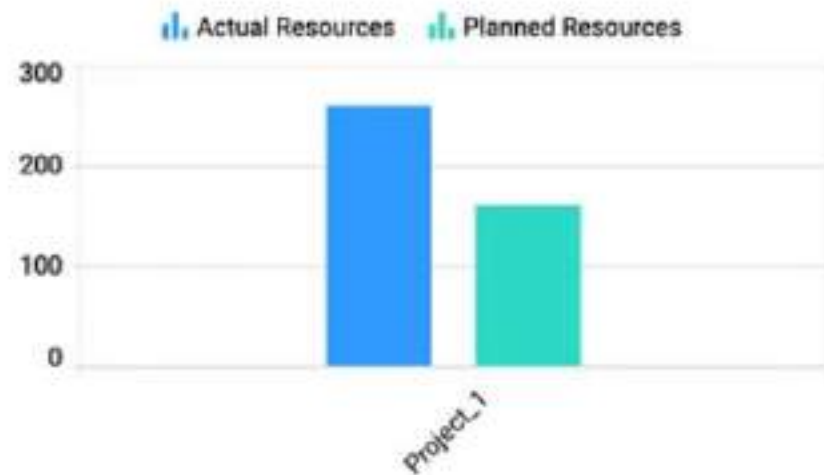
Projects by Stage



Project Compl...



Actual vs Planned Resources by Pro...



Metrics and KPIs for Cost Governance

Cost per Unit

Track project costs relative to the area under development.

Budget Variance

Percentage deviation of actual costs from the approved budget.

Construction Efficiency

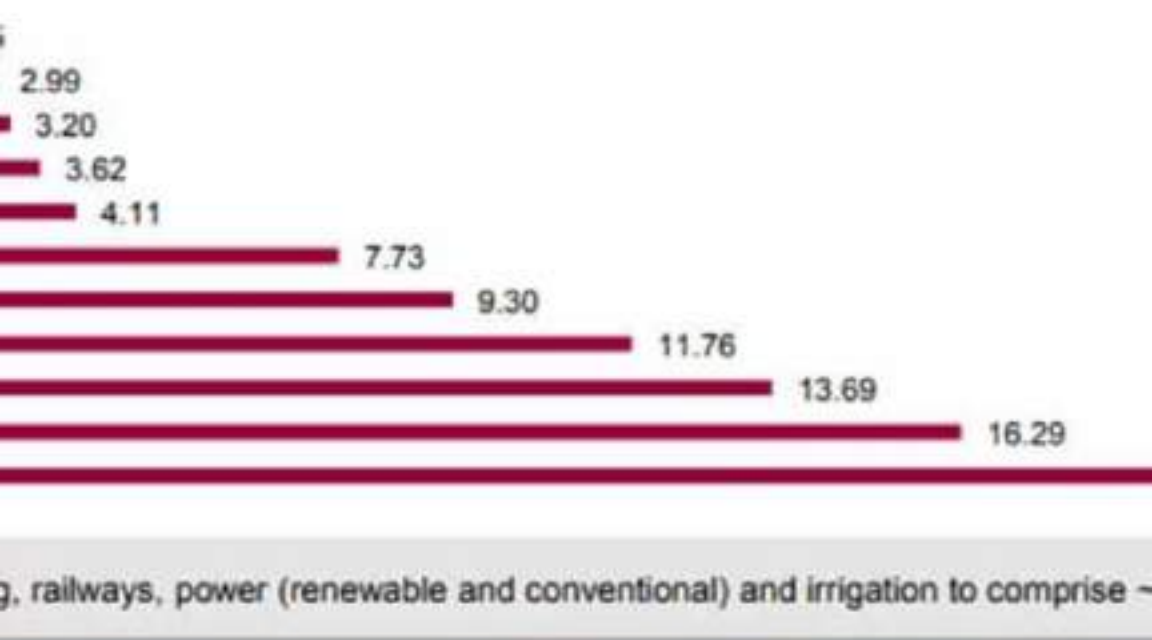
Cost versus output (e.g., cost per kilometres of road completed).

Material Wastage Rates

Measure and minimize wastage to control indirect costs.

Break-up of the NIP

Values in Rs. Lakh Crores



g, railways, power (renewable and conventional) and irrigation to comprise -

Infrastructure Pipe

More Metrics and KPIs

Cost of Poor Quality

Cost of rework and defects.

Return on Investment

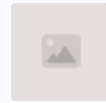
Compare revenue to costs for each project phase.

Social Cost Benefit Analysis (SCBA)

Benefits derived vs cost incurred to build the infrastructure.



Risk Management in Cost Governance



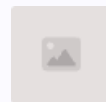
Contingency Reserves

Allocate contingency budgets for unforeseen circumstances such as natural disasters or supply chain disruptions.



Contractual Safeguards

Include clauses for cost overruns, penalties, and incentives in contracts.



Scenario Planning

Use simulations to predict cost impacts of delays, material shortages, or regulatory changes.

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Stakeholder Engagement in Cost Governance

Transparency

Regularly update investors, government bodies, and partners on cost performance.



Collaborative Planning

Involve contractors, suppliers, and subcontractors in cost governance discussions.



Feedback Loops

Use lessons learned from completed projects to refine cost governance practices.



Continuous Improvement (KAIZEN) in Cost Governance



Post-Project Reviews

Conduct audits to evaluate cost performance and identify areas for improvement.



Benchmarking

Compare costs with similar projects in the industry to set realistic targets.



Innovation Adoption

Stay updated on new technologies and methods that can reduce costs (e.g., prefabrication, green building materials).

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CONTINUOUS IMPROVEMENT
IN COST GOVERNANCE



Tools and Techniques of Cost Governance

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Tools for Cost Governance



Cost Estimation Software

Tools like Primavera and MS Project for accurate cost projections.



Budgeting Models

Techniques such as Zero-Based Budgeting (ZBB) and Activity-Based Budgeting (ABB).



Work Breakdown Structure

Breaking down projects into manageable components for accurate cost assignment.

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Analytical Techniques

Life Cycle Cost Analysis (LCCA)

Analyzing costs over the entire project life to optimize long-term value.

Value Engineering (VE)

Identifying ways to reduce costs without compromising functionality or quality.

Earned Value Management (EVM)

Integrates scope, schedule, and cost parameters to measure project performance and progress objectively..

Cost-Benefit Analysis (CBA)

Evaluating the economic feasibility and ROI of projects.

Monitoring and Control Tools

Variance Analysis

Comparing actual costs against planned budgets and analyzing discrepancies.

Key Performance Indicators (KPIs)

Metrics such as cost performance index (CPI), schedule variance, and cost variance.

Dashboards and BI Tools

Real-time dashboards using software like Power BI or Tableau for monitoring cost trends.

Risk Registers

Maintaining and monitoring financial risks and contingencies.



Accounting and Reporting Frameworks

1

Standard Costing

Setting standard costs for project activities and comparing them with actual expenditures.

2


Activity-Based Costing (ABC)

Allocating overhead costs based on actual consumption by project activities.

3

Integrated Reporting

Combining financial and non-financial data for comprehensive project insights.

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Stakeholder Engagement Techniques

1

Collaborative Platforms

Tools like SAP or Oracle ERP to ensure all stakeholders have access to financial data and updates.

2

Workshops and Reviews

Regular cost review meetings and stakeholder workshops to maintain alignment.

3

Communication Channels

Establishing clear lines of communication for cost-related updates and decisions.



Risk Management Tools

Contingency Reserve Planning

Allocating reserves for unforeseen circumstances using probabilistic models like Monte Carlo simulations.

Collaboration and Reporting Tools

Provides dashboards for stakeholders to monitor risk metrics and make informed decisions..

Sensitivity Analysis

Evaluating how changes in project variables impact costs, helping to identify critical risk factors.

IoT and Real-Time Monitoring Tools

Identifies physical risks like unstable terrain or structural issues

Flags potential risks to construction safety and material integrity.



Automation and Digital Tools



Building Information Modeling (BIM)

Integrating cost data into BIM for real-time tracking and cost governance.



Robotic Process Automation (RPA)

Automating repetitive financial processes to improve accuracy and reduce administrative overhead.



Artificial Intelligence (AI)

Predicting cost overruns using AI-based predictive analytics.

Government Filings	Yes	No
Federal Employer ID Number	<input type="checkbox"/>	<input type="checkbox"/>
State Employer ID Number	<input type="checkbox"/>	<input type="checkbox"/>
Local & State licenses & Permits	<input type="checkbox"/>	<input type="checkbox"/>
Qualifications To Do Business In All States	<input type="checkbox"/>	<input type="checkbox"/>
Annual Information statements with the Secretary Of State	<input type="checkbox"/>	<input type="checkbox"/>
Employment	Yes	No
"At will " Employment Policy	<input type="checkbox"/>	<input type="checkbox"/>
Non-Discrimination Policy	<input type="checkbox"/>	<input type="checkbox"/>
Sexual Harassment Policy	<input type="checkbox"/>	<input type="checkbox"/>
Job Offer Letter To New Employee	<input type="checkbox"/>	<input type="checkbox"/>
Forms from All Employees	<input type="checkbox"/>	<input type="checkbox"/>
Laws	Yes	No
Are the following laws applicable in the Company?	<input type="checkbox"/>	<input type="checkbox"/>
• Environmental Laws Worker Safety Laws	<input type="checkbox"/>	<input type="checkbox"/>
• Securities Laws	<input type="checkbox"/>	<input type="checkbox"/>
• Consumer Protection Laws	<input type="checkbox"/>	<input type="checkbox"/>
• Advertising Laws	<input type="checkbox"/>	<input type="checkbox"/>
• Employment Laws	<input type="checkbox"/>	<input type="checkbox"/>
• Product Liability Laws	<input type="checkbox"/>	<input type="checkbox"/>
• Corporate Laws	<input type="checkbox"/>	<input type="checkbox"/>

Compliance and Governance Techniques

Regulatory Adherence

Ensuring compliance with local and international financial standards and regulations.

Audit Frameworks

Implementing internal and external audits to maintain transparency and accountability.

Documentation

Maintaining comprehensive records of all cost-related decisions and actions.

Training and Capacity Building

1

Cost Governance Training

Equipping project teams with knowledge about cost control tools and techniques.

2

Workshops on Best Practices

Regular workshops to align practices with global standards in cost management.

3

Continuous Learning

Encouraging ongoing education in new cost management methodologies and technologies.



Value Addition by CMA as a 'Cost Governor'

Behind Every Successful Business Decision There is Always A 



Contingency Planning and Project Feasibility

Contingency Funds

Use historical data on marginal costs to estimate potential overruns. This helps allocate contingency funds effectively for unforeseen expenses.

Project Viability

Assess if incremental revenue covers marginal costs. For example, adding a new toll booth is viable if additional revenue justifies the cost.

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Material Selection and Procurement Decisions



Alternative Materials

Evaluate substitutes for expensive materials. Consider recycled aggregates instead of natural ones to reduce variable costs.



Bulk Purchasing

Compare marginal savings from bulk discounts against additional storage costs. Bulk orders are feasible if savings outweigh expenses.



Sustainable Procurement

Evaluate cost implications of eco-friendly materials. Pursue if marginal costs align with budgets and long-term benefits.

Make or Buy Decisions

1

Evaluate In-house Production

Calculate marginal costs of producing materials like concrete or steel components in-house.

2

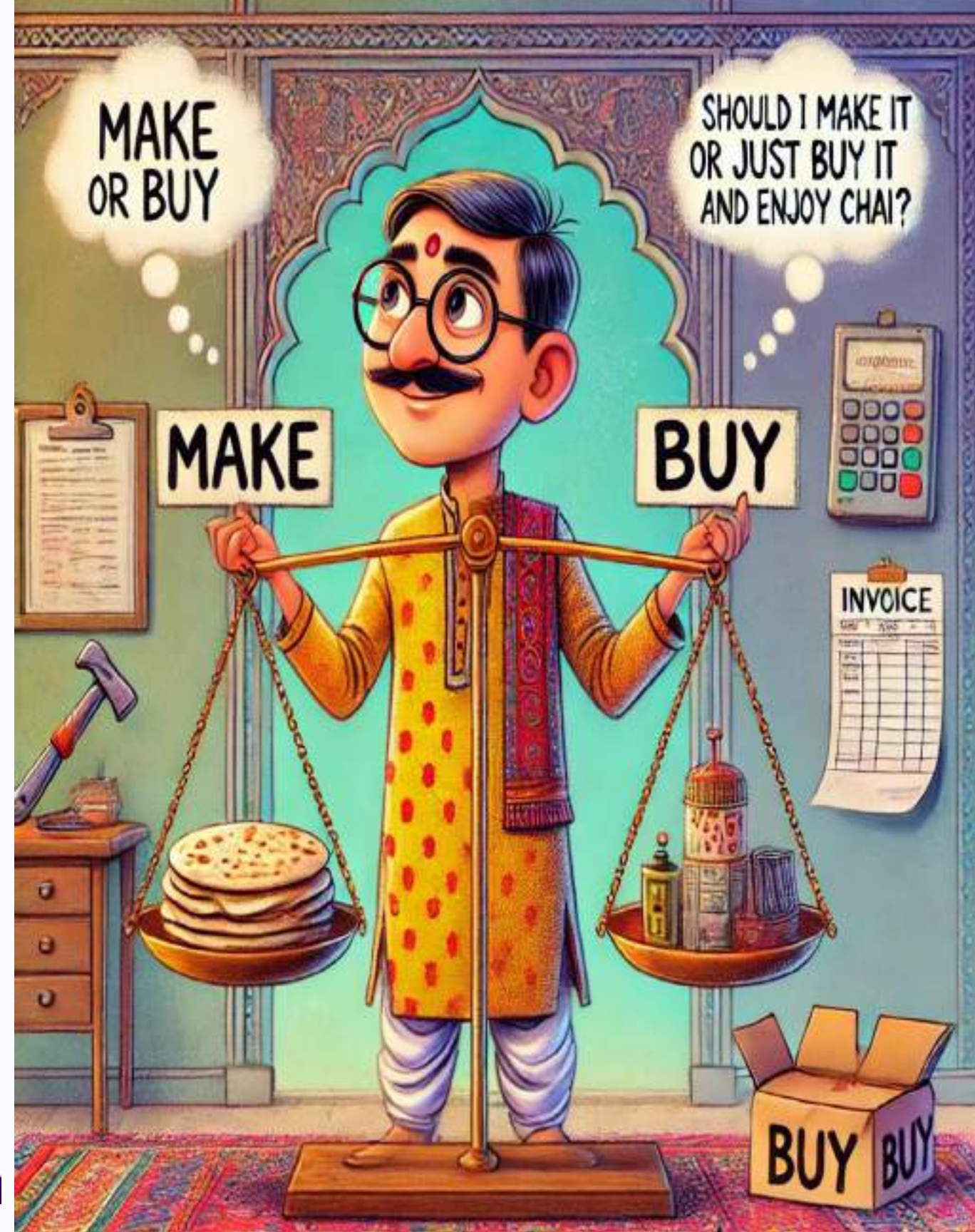
Compare Supplier Pricing

Obtain quotes from suppliers for the same materials or components.

3

Decide Based on Cost-effectiveness

Choose the option that minimizes costs while meeting quality standards and timelines.



Sensitivity Analysis and Additional Work

■ Assess Vulnerability to Cost Variations

Identify critical cost drivers by calculating how changes in variable costs affect project feasibility.

■ Evaluate Additional Work Orders

Analyze whether to accept extra work, like adding features to a bridge project.

■ Consider Marginal Revenue

Accept additional work only if revenue covers marginal cost and contributes to fixed costs.





Cost-Benefit of Defect Rectification

1

Identify Defects

Spot issues during commissioning that could be addressed immediately or later.

2

Compare Costs

Evaluate immediate rectification cost against future maintenance expenses and reputational risks.

3

Make Decision

Address defects now if marginal cost is justified by potential savings or enhanced reputation.



Project Continuation or Shutdown

Analyze Ongoing Costs

Evaluate fixed and variable costs of continuing an infrastructure project.

Project Future Revenues

Estimate potential future revenues from completing the project.

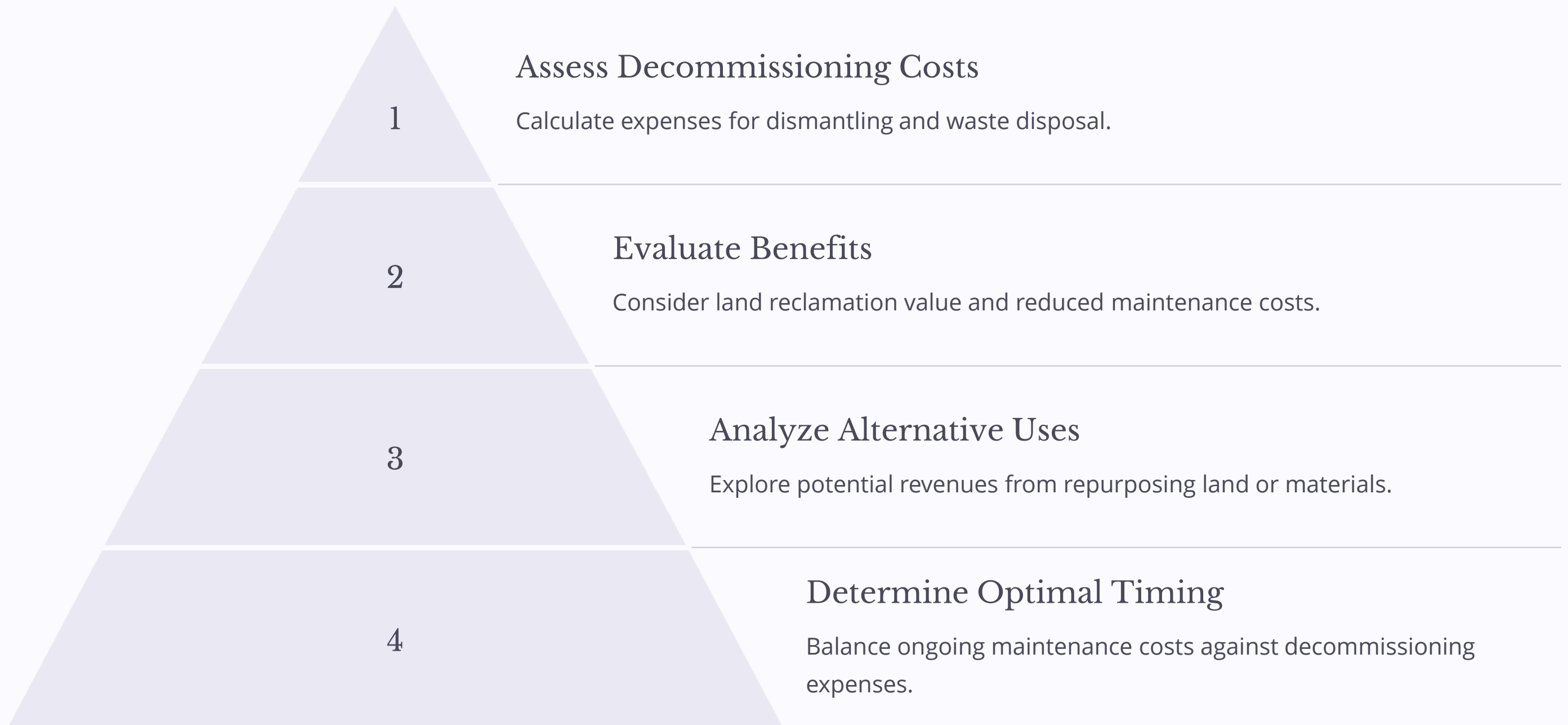
Assess Recovery Potential

Determine if additional costs can be recovered through future revenues.

Make Informed Decision

Decide to continue or shut down based on marginal cost analysis.

Decommissioning Strategies



Sustainable Design and Technology Adoption



Eco-friendly Materials

Compare marginal costs of sustainable materials against traditional options. Consider long-term benefits and environmental impact.



Prefabrication Methods

Evaluate cost-effectiveness of prefab techniques. Analyze potential time and labor savings against increased material costs.



Technology Adoption

Assess marginal costs of implementing new technologies. Consider productivity gains and potential cost reductions over time.

Case Studies

1

Challenge

What was the Challenge?

2

Solution

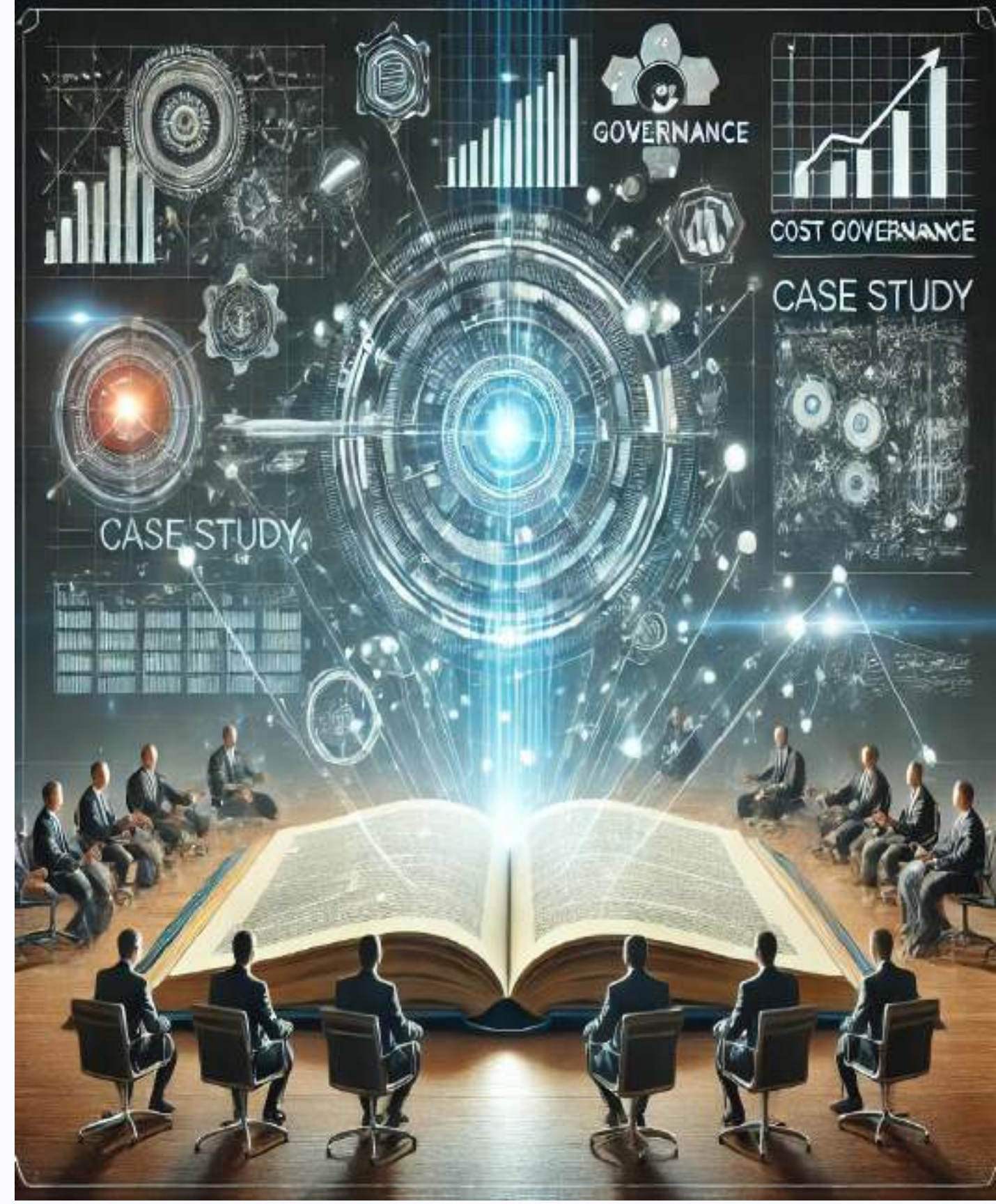
What was the Solution?.

3

Result

What was the result?

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Case Study: Procurement Cost Optimization

1

Challenge

Leading airport operators decided to control the procurement cost of certain items.

2

Solution

Designed a portal for inviting quotes from vendors, facilitating registration and quote uploads.

3

Result

Reduced cost of procurement of common items significantly, saving crores of rupees.



Case Study: Highway Construction Budget Optimization

Challenge

A major highway construction project faced budget constraints due to unforeseen environmental challenges.

Solution

The project team implemented value engineering techniques to optimize materials and design, reducing overall costs.

Result

The project was completed within budget despite the initial challenges, demonstrating the effectiveness of cost governance.

Case Study: Water Treatment Plant Cost Control

1 Challenge

A water treatment plant struggled with operational inefficiencies, leading to high energy consumption and maintenance costs.

2 Solution

The plant implemented automated systems and real-time monitoring to optimize energy usage and reduce manual labor costs.

3 Result

The plant significantly reduced its operational costs and achieved significant environmental sustainability benefits.



Case Study: Effective Procurement Strategies

Challenge

A major infrastructure project faced challenges with procurement, leading to delays and cost overruns.

Solution

The project team implemented a rigorous procurement process, using competitive bidding, contract negotiation, and risk assessment.

Outcome

The project achieved significant cost savings through efficient procurement, reducing overall project costs.



Case Study: Road Repair and Maintenance

1

Challenge

Roads across Andhra Pradesh were damaged due to floods and poor maintenance, requiring immediate repair.

2

Solution

The government contemplated outsourcing the laying maintenance of roads to an agency.

3

Expected Outcome

Immediate repair of potholes and long-term maintenance by the outsourcing agency, reducing government responsibilities and good quality of work.



Case Study: Delhi Metro Rail Corporation (DMRC)

Efficient Cost Management

DMRC is known for completing projects on time and within budget. Their cost governance practices include rigorous planning, effective procurement strategies, and innovative financing models.

Technology Adoption

Use of advanced tunneling techniques and automated fare collection systems to optimize costs and improve efficiency.



Case Study: Mumbai-Ahmedabad High-Speed Rail (MAHSR) Project

Objective

Reduce travel time while ensuring financial viability

Cost Governance Strategies

Collaboration with Japan International Cooperation Agency (JICA) for funding at low interest rates.
Use of indigenous manufacturing for components to control costs



Case Study: Kempegowda International Airport, Bengaluru (BIAL)

Designed as a "sustainable terminal" with features like natural lighting, rainwater harvesting, and energy-efficient systems

Use of pre-engineered modular construction to reduce time and costs.

Outcome: 20% reduction in construction costs compared to traditional methods.



Future of Cost Governance: Collaborative Platforms

1

Real-time Data Sharing

Instant access to cost data for all stakeholders.

2

Cloud-based Solutions

Centralized platforms for cost management accessible from anywhere.

3

Integrated Systems

Seamless connection between different project management tools.



Future of Cost Governance: AI and Machine Learning

Predictive Analytics

AI-powered tools will enhance cost forecasting and risk assessment, providing more accurate predictions and allowing for proactive cost management.

Automated Reporting

Machine learning algorithms will generate real-time cost reports, identifying trends and anomalies faster than traditional methods.



Future of Cost Governance: Blockchain Technology

Enhanced Transparency

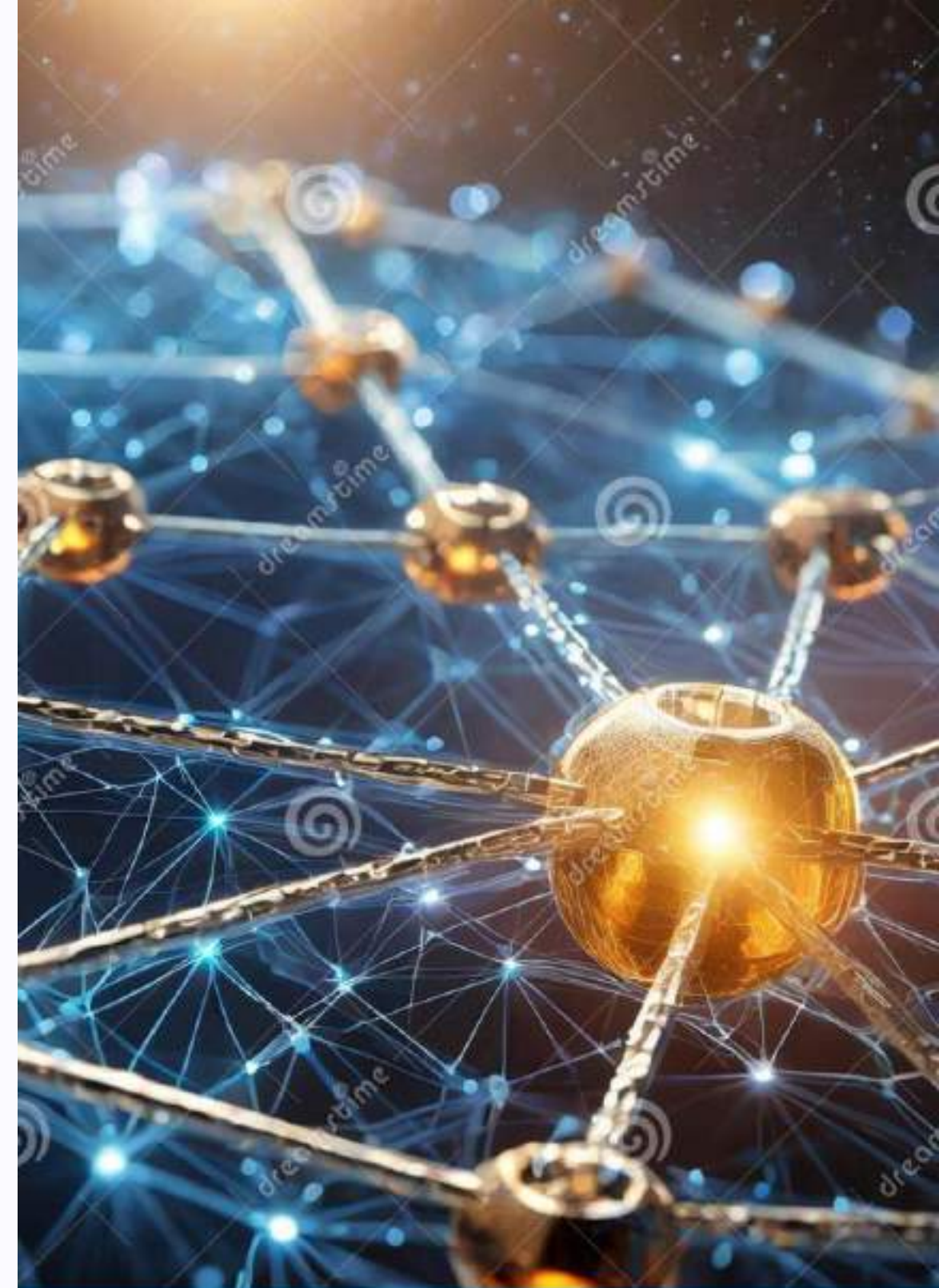
Blockchain will provide immutable records of all financial transactions, increasing trust among stakeholders.

Smart Contracts

Automated execution of contract terms will streamline processes and reduce disputes.


Supply Chain Visibility

Improved traceability of materials and services will lead to better cost control and risk management.



Future of Cost Governance: Sustainable Cost Models



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Best Practices for Cost Governance Training

1 Regular Workshops

Conduct frequent training sessions on cost management tools and techniques.

2 Case Studies

Use real-world examples to illustrate effective cost governance strategies.

3 Hands-on Exercises

Provide practical experience with cost management software and tools.

4 Cross-functional Training

Ensure all team members understand their role in cost management.



Challenges in Infrastructure Cost Governance

Project Complexity

Large-scale infrastructure projects often have numerous interconnected components, making cost tracking difficult.

Long Timelines

Projects spanning several years face challenges in long-term cost forecasting and control.

Stakeholder Management

Balancing the cost expectations of various stakeholders can be challenging.

Regulatory Compliance

Adhering to changing regulations while managing costs requires constant vigilance.

Challenges in Implementing Cost Governance

Resistance to Change

Overcoming traditional practices and mindsets in the construction industry.

Data Integration

Consolidating data from various sources and legacy systems.

Skill Gap

Training workforce in new technologies and cost management practices.

Regulatory Compliance

Navigating complex and changing regulations while maintaining cost efficiency.



Key Takeaways for CMAs in Infrastructure Cost Management

Embrace Technology

Leverage advanced tools and software for more accurate and efficient cost management.

Continuous Learning

Stay updated with the latest cost management techniques and industry best practices.

Prioritize Collaboration

Foster open communication and data sharing among all project stakeholders.

Proactive Approach

Anticipate potential cost issues and develop mitigation strategies in advance.



Conclusion

- ❖ Cost governance lays the foundation so strong,
- ❖ Value addition ensures we move along.
- ❖ Infrastructure thrives with wisdom and might,
- ❖ Led by CMA, we achieve the height.

Behind Every Successful Business Decision There is Always A 



THANK YOU

PEER REVIEW MECHANISM

The Institute of Cost Accountants of India



***GIRISH KAMBADARAYA, Practicing Cost Accountant
Regional Council Member - Southern India Regional Council - ICMAI***

PEER REVIEW

- **Peer Review** means evaluation of a Cost Accountant's work or performance by another Cost Accountant in terms of the standards of performance in audit and assurance services.
- PR involves **examination and review of the systems, procedures and practices to determine whether they have been put in place** by the practicing firm for **ensuring the quality of audit and assurance services** as envisaged and implied / mandated by the Technical, Professional and Ethical Standards and **whether the same were effectively and constantly applied** during the period under review.



➤ **Main objective**

- To improve quality of deliverables and to ensure compliance with Technical & Professional Standards and Code of Ethics of the Institute as well as of the regulatory bodies.
- Enhancing credibility, transparency and adopting best practices and imparting knowledge and skills.

➤ **Effective** - Process started from **1st August 2024**

NOT A FAULT-FINDING MECHANISM:

Peer Review Mechanism is Not a fault-finding exercise but parental in approach for improving quality of reporting

REVIEW PERIOD:

3 years preceding the year in which the Firm is selected or such other period or any period as may be prescribed by the Peer Review Board for conducting a Peer Review.

WILLINGNESS FOR PR:

The Practice Unit (Firm) seeking Peer Review has to send the consent for the same to the Peer Review Board on its email peerreviewboard@icmai.in

TRAINING FOR REVIEWERS:

PRB to arrange for such training programs for reviewers as may be deemed appropriate.

QUALIFICATION OF REVIEWERS

- Be a member of the Institute; and
- Be currently in the practice and possess at least ten years' experience in practice; and
- Furnish a declaration as may be prescribed by the Board, at the time of acceptance of Peer Review appointment; and
- Sign the declaration of confidentiality as prescribed by Board.

Category of Practice Unit

Category of
Practice Unit

Turnover of PU (Rs. in Lakhs)

- A

- Greater than 50

- B

- Greater than 25 and less than or equal to 50

- C

- Less than or equal to 25

On considering the Report of the Peer Review: The PRB to do any or all of the following:

(a) To issue recommendations to the Firm;

(b) To order a further peer review to be carried out:

(c) After considering the report of the reviewer and compliance of recommendations by the Firm if any, wherever deemed appropriate by the Board, to issue Peer Review Certificate.

(d) To guide the members on best practices on peer review.

Empanelment as a Peer Reviewer - Eligibility

A Reviewer should be

- (a) A member of the Institute; and
- (b) Currently in the practice and possess at least ten years' experience in practice; &

Should not have been

- (a) found guilty by the Council or the Disciplinary Board or Committee in the matter of professional misconduct at any time; or
- (b) convicted by a Court;

PEER REVIEW BOARD - DUTIES & POWERS

1. To maintain a panel of Reviewers.
2. To define the terms of appointment of the Reviewers.
3. To arrange for interactive sessions to further fine tune the Peer Review process.
4. The process of peer review will cover the following:
 - a) *The Reviewer shall send his report to the Board with a copy marked to the firm advising the firm to respond to the report within the stipulated time frame directly to the Board with a copy marked to the Reviewer.*
 - b) *The Board after studying the report of the Reviewer and the rejoinder by the firm will decide whether to call the firm and Reviewer for a discussion or not.*
 - c) *In case there exists any difference of opinion between the firm and the Reviewer the Board may issue necessary recommendations accordingly.*
 - d) *If found necessary, to order a further peer review to be carried out*
 - e) *To issue Peer Review Certificate after the peer review process is successfully completed;*
 - f) To guide the prospective Reviewers on best practices on peer review.

Fees of Peer Review

Category of
Practice Unit

Peer Review Fees

- | | |
|-----|--------------|
| • A | • Rs. 40,000 |
| • B | • Rs. 30,000 |
| • C | • Rs. 20,000 |

*GST extra as applicable

PEER REVIEWER

- A Reviewer shall not accept any professional assignment from the Firm for a period three years from the date of appointment as Reviewer.
- The Board may examine the quality of the report and shall have powers to remove the Reviewer from the panel of reviewers in case the quality of the review / reporting standards falls below the desired levels.

PEER REVIEWERS AS ON 27-NOV-24

Region	Enrolled
East	19
North	11
South	18
West	31
	79



thank
you