

## Chapter 1

### Automated Business Processes

# Summary Notes – Fast Track

*Key Note: There are few topics, which are not part of this summary notes; but which are part of ICAI study materials. Those topics have been covered in other Chapters of summary notes to better align the flow of subjects.*

### 1.1. Business Process

#### 🔍 Definition

**B**usiness **P**rocess consists of a set of activities that are performed in coordination in an organization and technical environment to jointly realize a business goal.

#### 🔍 Business Process Categories

##### 1. Operational Process or Primary Process:

- Produces a specific service or product
- Core business or value chain
- Deliver value to customer

**E**xample: PTP, OTC

##### 2. Supporting Processes:

- Supports operational activities
- Do not contribute directly production
- Imposed by regulatory constraints
- Requirements of good governance

**S**upporting processes back core processes and functions within an organization.

**E**xample: Accounting, HRMS

##### 3. Management Processes:

- Measure, monitor and control activities related to business procedures and system.

**E**xample; Internal communication, governance, strategic planning, budgeting and infrastructure or capacity management.

### 1.2. Definition

**B**usiness **P**rocess **M**anagement is a systematic approach of improving business processes.

**E**nterprise **I**nformation **S**ystem (**EIS**) may be defined as any kind of information system which improves the functions of an enterprise business processes by integration. An Enterprise Information System provides a single system that is central to the organization that ensures information can be shared across all functional level and management hierarchies.

### 1.3. Business Process Automation (BPA)

🔍 Definition	🔍 Key Objectives	🔍 Key Benefits	🔍 Key Steps
<p>A <b>Business Process Automation</b> is the technology-enabled automation of activities or services that accomplish a specific function and can be implemented for many different functions of company activities, including sales, management, operations, supply chain, human resources, information technology etc.</p>	<p><b>M-Code: Central Intelligence Agency Team</b></p> <ul style="list-style-type: none"> <li>■ <b>Confidential:</b> Authorized person only</li> <li>■ <b>Integrity:</b> Unauthorized person cannot amend</li> <li>■ <b>Availability:</b> On need and demand</li> <li>■ <b>Timeliness:</b> Available at right time</li> </ul>	<p><b>M-Code: RBI Governor of India Raghuram was Qualified Visionary and Tactful</b></p> <ul style="list-style-type: none"> <li>■ <b>Reduced Cost:</b> Manual task – slower rate, more manpower; Automation – fewer resources, reduces cost</li> <li>■ <b>Governance and Reliability:</b> Consistency – reliability, competitive advantage; Corporate governance 100%</li> <li>■ <b>Improved Operational Efficiency:</b> Reduces efforts, time, and cost; smoothly and efficiently and eliminate the errors.</li> <li>■ <b>Reduced Turnaround Time:</b> Realign and streamline business processes, optimize flow of information, operational efficiency, reduces turnaround time.</li> <li>■ <b>Quality and Consistency:</b> Identical processes, high quality and reliable results.</li> <li>■ <b>Visibility:</b> Operate accurately, defined timeliness, visibility</li> <li>■ <b>Time Saving:</b> Reduces manual level, focuses on more value added activities.</li> </ul>	<p><b>M-Code: DUDDE CDT</b></p> <ul style="list-style-type: none"> <li>■ <b>Define</b> why we plan to implement BPA?</li> <li>■ <b>Understand</b> the rules and regulations under which it needs to comply with?</li> <li>■ <b>Document</b> the process, we wish to automate?</li> <li>■ <b>Define</b> the objectives/goals to be achieved by implementing BPA?</li> <li>■ <b>Engage</b> the business process consultant</li> <li>■ <b>Calculate</b> the ROI of the project</li> <li>■ <b>Development</b> of BPA</li> <li>■ <b>Testing</b> the BPA</li> </ul>

1.4. Risks

🗑️ Definition

Risk is any event that may result in a significant deviation from a planned objective resulting in an unwanted negative consequences.

🗑️ Types

**M-Code: SR FOR**

- Strategic
- Regulatory (Compliance)
- Financial
- Operational
- Reputational

🗑️ BPA (Risks)

**M-Code: IPO FDI**

- Input and Access
- Processing
- Output
- File and Data Transmission
- Data
- Infrastructure

## Enterprise Risk Management (ERM)

## 🔍 Definition

**E**nterprise **R**isk **M**anagement is a process, effected by board of directors, management and other personnel, applied in strategy setting across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

The Sarbanes Oxley Act (SOX) has used Committee of Sponsoring Organizations (COSO) framework as a guide for implementing risk management and internal controls. The Executive Summary of Enterprise Risk Management - Integrated Framework published by COSO of the Treadway Commission (COSO) highlights the need for management to implement a system of risk management at the enterprise level.

## 🔍 Benefits

**M-Code: CAG** scrutinized **ROI** of **IOC**

- **R**isk **A**ppetite **S**trategy: Variation in results, acceptance vs. stated strategies, strategic alternatives, setting objectives, mechanism to manage risk.
- **L**ink **G**rowth **R**isk and **R**eturn: Accepts risks, objective of value creation, return vs. risk, ERM – Identify and assess, acceptable level vs. growth and return.
- **E**nhance **R**isk **R**esponse **D**ecision: ERM – methods and techniques to identify, select for alternative responses. Avoidance, reduction, sharing and acceptance.
- **M**inimize **O**perational **S**urprise and **L**osses: Enhanced capability, identify potential events, assess risks, and establish responses. Reduce occurrence, surprise, cost and losses.
- **I**dentify and **M**anage **C**ross- **E**nterprise **R**isks: Several risks, impacts enterprise. Understand interrelated components.
- **P**rovide **I**ntegrated **R**esponses to **M**ultiple **U**sers: Inherent risks, ERM – Integrated solution to manage risks.
- **S**eize **O**pportunities: Considers events. Evaluate full range, and opportunities.
- **R**ationalize **C**apital: Total risk information, capital needs and allocation.

## 🔍 Components

**M-Code: IS EAR AIM**

- **I**nternal **E**nvironment: Tone, risk management, philosophy, risk appetite, ethical values and environment.
- **O**bjective **S**ettings: ERM – process to set objectives, Entity's vision, mission and risk appetite.
- **E**vent **I**dentification: Internal and external events identified, impacts, achieve strategic objective, evaluate opportunities, and broaden the objective and common risk language.
- **R**isk **A**ssessment: Assess impacts, basis for handling
- **R**isk **R**esponse: Select approach for to align assessed risk vs. tolerance and appetite. Avoiding, accepting, reducing and sharing.
- **C**ontrol **A**ctivities: Sets policies, procedures and guidelines. Ensure execution, carrying out selected risk responses.
- **I**nformation and **C**ommunication: Relevant identified, captured and communicated, form and time, carry out responsibilities.
- **M**onitoring: Monitored and modified

Internal Control

🗑️ Definition: Control	🗑️ Definition: Internal Control	🗑️ Components	🗑️ Limitations
<p>Control is defined as policies, procedures, practices and organization structure that are designed to provide reasonable assurance that business objectives are achieved and undesired events are prevented or detected and corrected.</p> <p><b>Well-designed Internal Control:</b></p> <ul style="list-style-type: none"> <li>■ Management Authorization</li> <li>■ Promptly Recorded Accurately</li> <li>■ Safeguard Assets</li> <li>■ Comparing of assets</li> </ul> <p>Control can be:</p> <ul style="list-style-type: none"> <li>■ Manual</li> <li>■ Automated</li> <li>■ Semi-automated</li> </ul> <p><b>Example:</b> P2P</p>	<p>Internal Control is defined as the plan of enterprise and all the methods and procedures adopted by the management of an entity to assist in achieving management’s objective of ensuring, as far as practicable, the orderly and efficient conduct of its business, including adherence to management policies, the safeguarding of assets, prevention and detection of fraud and error, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information.</p> <p style="text-align: center;"><b>🗑️ Objectives</b></p> <ul style="list-style-type: none"> <li>■ Safeguard assets</li> <li>■ Check the accuracy and reliability of its accounting data</li> <li>■ Promote operational efficiency</li> <li>■ Encourage adherence to policies for accounting and financial controls</li> </ul>	<ol style="list-style-type: none"> <li>1. <b>Control Environment:</b> Set of standards, processes, and structures, foundation for internal control, set the tone.  <b>Five Principles:</b> Management’s role                     <ul style="list-style-type: none"> <li>■ Demonstrates commitment to integrity and ethical values</li> <li>■ Exercises oversight responsibility</li> <li>■ Establishes structure, authority and responsibility</li> <li>■ Demonstrates commitment to competence</li> <li>■ Enforces accountability</li> </ul> </li> <li>2. <b>Risk Assessment:</b> Dynamic and iterative process for identifying and analyzing risks  <b>Four Principles:</b> Management’s role                     <ul style="list-style-type: none"> <li>■ Specifies relevant objectives</li> <li>■ Identifies and analyzes risk</li> <li>■ Assesses fraud risk</li> <li>■ Identifies and analyzes significant change</li> </ul> </li> <li>3. <b>Control Activities:</b> Policies, procedures, techniques, and mechanism, risks mitigates to achieve objective.  <b>Three Principles:</b> Management’s role                     <ul style="list-style-type: none"> <li>■ Selects and develops control activities</li> <li>■ Selects and develops general controls over technology</li> <li>■ Deploys through policies and procedures</li> </ul> </li> <li>4. <b>Information and Communication:</b> Essential for control objectives  <b>Three Principles:</b> Management’s role                     <ul style="list-style-type: none"> <li>■ Uses relevant information</li> <li>■ Communicates internally</li> <li>■ Communicates externally</li> </ul> </li> <li>5. <b>Monitoring Activities:</b> Evaluating quality and addressing deficiencies  <b>Two Principles:</b> Management’s role                     <ul style="list-style-type: none"> <li>■ Conducts ongoing and/or separate evaluations</li> <li>■ Evaluates and communicates deficiencies</li> </ul> </li> </ol>	<p>M-Code: <b>Ram Chandra Ji English Bole Chitrakoot Mai</b></p> <ul style="list-style-type: none"> <li>■ <b>Resource Limitations:</b> Prioritization within resource</li> <li>■ <b>Cost Benefits:</b> Benefits &gt; Cost</li> <li>■ <b>Judgement:</b> Human judgement, experience, qualification, time, information, pressures; written policies, instructions, redundant controls, effective monitoring - address</li> <li>■ <b>External Event:</b> Federal regulations, responsiveness of customers, program partners, natural disasters; effective risk assessment – addresses.</li> <li>■ <b>Breakdowns:</b> Misunderstanding of instructions, obsolete technology, faulty assumptions, carelessness, distraction, many tasks. Risk assessment, monitoring, automated and redundant control - addresses</li> <li>■ <b>Collusion:</b> Control failures, Monitoring and redundant controls can limit - address</li> <li>■ <b>Management Override:</b> Policies and procedure for personal gain or advantage; Internal audit functions, whistleblower - address</li> </ul>

## Flow Chart

🔗 Definition	🔗 Steps	🔗 Advantages	🔗 Limitations
<p>A <b>F</b>lowchart is a graphically representation of the structure of process or system, algorithm or the step-by-step solution of the problem.</p>	<ol style="list-style-type: none"> <li>1. <b>I</b>dentify the <b>P</b>rocess: Process identification and establishing the overall goals.</li> <li>2. <b>G</b>ather <b>I</b>nformation: Study, observe and collect inputs from business owners.</li> <li>3. <b>C</b>onfirmation of <b>P</b>rocess <b>U</b>nderstanding: Rough diagram for process understanding.</li> <li>4. <b>I</b>nterview <b>P</b>articipants and <b>S</b>takeholders: Additional information from all stakeholders.</li> <li>5. <b>I</b>dentify <b>P</b>rocess and <b>R</b>esponsibility: Activities in each process and responsible person.</li> <li>6. <b>I</b>dentify <b>S</b>tarting <b>P</b>oint of the <b>P</b>rocess: Inputs trigger the process, categories <ul style="list-style-type: none"> <li>○ External Event</li> <li>○ Content Arrival</li> <li>○ Human Intervention</li> </ul> </li> <li>7. <b>B</b>uild the <b>L</b>inkages between <b>S</b>teps: Events, Activities, Decision gateways.</li> <li>8. <b>B</b>usiness <b>P</b>rocess <b>M</b>odelling <b>N</b>otification (<b>BPMN</b>)</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>C</b>ommunication: Better way of communicating the business process activities.</li> <li>2. <b>E</b>ffective <b>A</b>nalysis: Blueprint of system, broken down, Analysis and new approach</li> <li>3. <b>D</b>ocumentation: Future program conversion, training.</li> <li>4. <b>E</b>fficient <b>C</b>oding: Additional information from all stakeholders.</li> <li>5. <b>P</b>rogram <b>D</b>ebugging: Detecting, locating and removing mistakes.</li> <li>6. <b>E</b>fficient <b>P</b>rogram <b>M</b>aintenance</li> <li>7. <b>I</b>dentifying <b>R</b>esponsibilities: Identification of functional department and responsibilities</li> <li>8. <b>Q</b>uicker <b>G</b>rasp of <b>R</b>elationship: Application program or business processes</li> <li>9. <b>E</b>stablishing <b>C</b>ontrols: Conflicts and risks identification and recommendation for suitable controls.</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>C</b>omplex <b>L</b>ogic: Clumsy</li> <li>2. <b>A</b>lterations and <b>M</b>odifications: Complete re-drawing</li> <li>3. <b>R</b>eproduction: Symbols cannot be typed.</li> <li>4. <b>L</b>ink between <b>C</b>onditions and <b>A</b>ctions: Sometimes difficult</li> <li>5. <b>S</b>tandardization: Program flowcharts, English or its translation into programming language.</li> </ol>