

CHAPTER 1 – BUSINESS PROCESS MANAGEMENT & IT

1. WHAT IS A PROCESS?

From a business perspective, a process is a coordinated and standardized flow of activities performed by people or machines, which can traverse functional or departmental boundaries to achieve a business objective and creates value for internal or external customers.

2. BUSINESS PROCESS MANAGEMENT (BPM)

- ✓ BPM refers to the closed loop, iterative management of business processes over their complete lifecycle.
- ✓ BPM may be defined as: “The achievement of an organization’s objectives through the improvement, management and control of essential business processes”.

3. BPM PRINCIPLES AND PRACTICES

The primary objective of BPM is

- ✓ to improve products and services through
- ✓ structured approach to performance improvement that
- ✓ centers on systematic design and management of a company’s business processes.

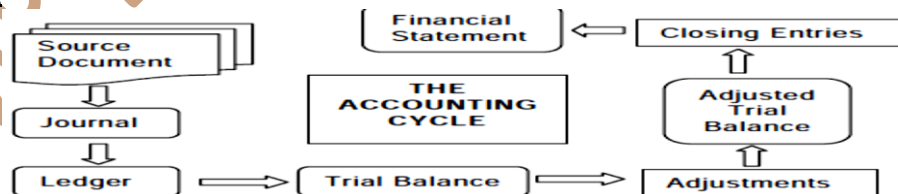
Some of the key BMP principles

1. processes are assets
2. produces consistent value to customers
3. continuous improvement of processes.

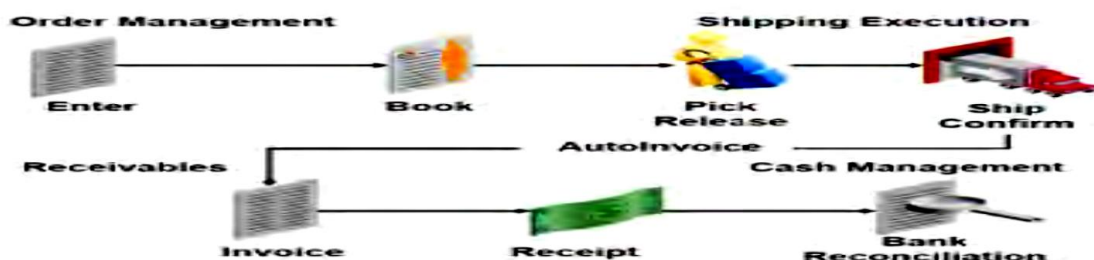
Some of the key BMP practices

1. Appoint process owner.
2. Create process oriented structure
3. Put in place Information Technology

Accounting



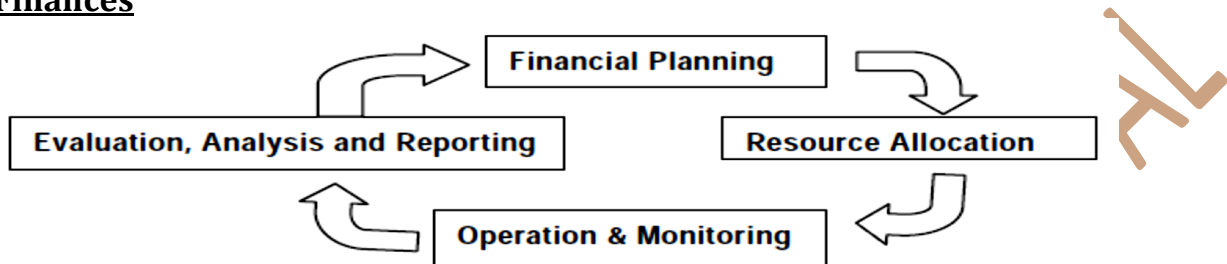
Sales (Order to Cash / O2C)



Purchase (Purchase to Pay or P2P)



Finances



4. BPM IMPLEMENTATION

- ✓ develop a mindset
- ✓ BPM implementation is enormous
- ✓ easier with BPM tools
- ✓ BPM helps organizations optimize both work and revenues.

5. KEY FACTORS AND RELATED CONSIDERATION IN IMPLEMENTING BPM

- 1) **Scope** – A single process, A department , the entire company
- 2) **Goals** – Process understanding, improvement, re-engineering, and optimization.
- 3) **Skills required**-basic education, formal certification, consultants.
- 4) **Sponsorship Needed** - Executive Level, Department Level, Process Owner Level etc
- 5) **Methods to be used**: Six Sigma, BPM Life Cycle Method, TQM, Informal methods
- 6) **Tools to be used**: White-Boards, Sticky Notes, Software For Mapping etc.

6. BENEFITS OF BPM

- ✓ Managing large amounts of documents and data.
- ✓ The business can rearrange process steps and add in manual steps quickly.
- ✓ Reduced Process Costs due to increased quality / reduced no of errors.
- ✓ Reduced training time, expenses and internal support request.

7. NEED FOR A BPM IMPLEMENTATION

1. Create the long-term future positioning of the business and enhance its future capability
2. Introduce a knowledge of product and customer profitability
3. Re-engineer the business radically

8. CHALLENGES IN IMPLEMENTING BPA

- ☒ The number of interfaces with the customers is growing (e.g. phone, fax, email, sms, PDA, etc.)
- ☒ The product, service and price options have increased the complexity of the business.
- ☒ Budgets are being cut

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9. BUSINESS PROCESS AUTOMATION (BPA): BENEFITS & RISKS

Benefits

1. Saving on costs:
2. Staying ahead in competition:
3. Fast service to customers:

Risks

1. Risk to jobs:
2. False sense of security:

10. ACCOUNTING SYSTEMS AUTOMATION

- ❖ AIS is defined as a system of collection, storage and processing of financial and accounting data that is used by decision makers.

Basic Functions of an Accounting Information System (AIS)

There are three basic functions of AIS and these are explained here.

- a. Collect and store data
- b. Record transaction
- c. Safeguarding organisational assets

11. PROCESSING CYCLES OF AN ACCOUNTS BPM

RTP

Financing Cycles: recognition of a major economic

Revenue Cycle: It includes transactions relating to revenue and involves accounts like Sales, Accounts Receivable, Inventory

Expenditure Cycle: It includes transactions relating expenditures and involves accounts like Purchases, Accounts Payable, Cash Disbursements

Human Resource Cycle: Common Source Documents & Functions are as follows:

Source Document	Function
W4 forms	Collect employee withholding data.
Time cards	Record time worked by employees.
Job time tickets	Record time spent on specific jobs.

General Ledger & Reporting System:

Data Processing Cycle:

- If the process of updating of the data stored is periodic, it is referred to as batch processing and if involves immediate updating as each transaction occurs, it is referred to as on-line, real-time processing.
- Data files stored in the system typically include the following:
 1. Transaction file
 2. Master file
 3. Reference (table) file

12. BENEFITS OF BPMS

- 1) Automating repetitive business processes:
- 2) BPMS works by 'loosely coupling' with a company's existing applications:
- 3) Operational Savings:

4) **Reduction in the administration involved in Compliance and ISO Activities:**

5) **Freeing-up of employee time:**

13. REASONS FOR FAILURE OF BPMS ARE

- ☒ Superficial or deficient executive involvement
- ☒ Failure to identify future business needs
- ☒ Resources not available when desirable
- ☒ Technological obsolescence.

14. INFORMATION AS A BUSINESS ASSET

- ❖ Information can be treated as a valuable commodity if it can be used effectively.
- ❖ To achieve operational efficiency, information technology must be tailored to an organisation's need for CRM, ERP etc.

15. MAPPING SYSTEMS:

Accountants/Auditors need not to learn complex programming languages but they must understand the documents that describes how processing take place.

This document includes flowcharts, narrative and other written communication that describe Input, Processing & Output.

Why Documentation is Important???

1. Depicting how the system works:
2. Training users:
3. Designing new systems:
4. Controlling system development and maintenance cost:

Various types of mapping systems are

1. Entity-Relationship Diagrams	2. Data flow diagrams
3. Flowcharts	4. Decision trees
5. Decision table, etc.	

16. ENTITY-RELATIONSHIP DIAGRAMS

An E-R diagram can express the overall logical structure of a database graphically. E-R diagrams are simple and clear-qualities that may well account in large part for the widespread use of three-R model.

- ✓ Boxes are commonly used to represent entities.
- ✓ Diamonds represent relationship sets.

Types of Relationship

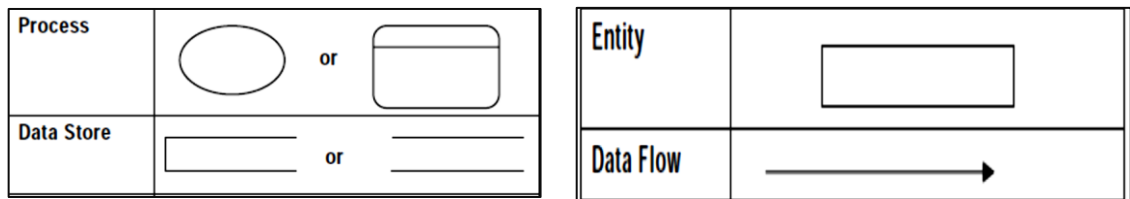
- (a) One to One Relationship
- (b) One to Many
- (c) Many to One
- (d) Many to Many

Example 1: Refer page 10 of book

17. DATA FLOW DIAGRAMS

- ✓ A data flow diagram (DFD) graphically describes the flow of data within an organization. It is used to document existing systems and to plan and design new ones. DFDs can also be used for the visualization of data processing (structured design).

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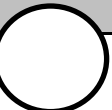


The four major DFD component's symbols

1. **Entity:**
 - a. An entity is the source or destination of data.
 - b. Entities either provide data to the system or receive data from it.
2. **Process:**
 - a. The process is the manipulation or work that transforms data, performing computations, making decisions (logic flow), or directing data flows based on business rules.
3. **Data Store:**
 - a. A data store is where a process stores data between processes for later retrieval by that same process or another one.
4. **Data Flow:**
 - a. Data flow is the movement of data between the entity, the process and the data store.

18. FLOWCHARTS

- ✓ A flowchart is a type of diagram that represents an algorithm or process, showing the steps as boxes of various kinds, and their order by connecting them with arrows.
- ✓ Flowcharting symbol (only relevant at our level has been taken here)

	Terminator: Used at the beginning and end of a program or subroutine.
	Process: Such as performing arithmetic.
	Decision:
	Input/output operations.
	Connector:
	When Hardcopy output is required or document to be printed.

Types of flowchart:-

✓ System flowcharts (national map)	✓ System Outline Charts (Global map)
✓ Run flowcharts (State map)	✓ Program flowcharts (District map)

1. **System Outline Charts (Global map)** → lists the inputs, files processed
2. **System flow charts** →
 - a. It is a graphic diagramming tool that documents and communicates the flow of data media and information processing procedures taking place in an information system.
3. **Run flowcharts (State map):** These are prepared from the system flowcharts and show the reference of computer operations to be performed.
4. **Program flowcharts (District map):** Program flowchart, showing the controls in a program within a system

19. DIFFERENCE BETWEEN FLOWCHART AND DATA FLOW DIAGRAM

Flowchart	Data Flow Diagram
Flow chart presents steps to complete a process.	DFD presents the flow of data.
Flow charts do not have any input from or output to an external source.	DFD describes the path of data from an external source to internal source or vice versa.
The timing and sequence of the process is aptly shown by a flowchart.	Whether processing of data is taking place in a particular order or several processes are taking place simultaneously is described by a DFD.
Flow chart shows how to make a system function.	DFD define the functionality of a system.
Flow chart are used in designing a process.	DFD are used to describe the path of data that will complete that process.
Types of Flow charts – System, Data, Document and Program.	Types of DFD – physical data flow and logical data flow.

20. DECISION TREE

A decision tree is a way of representing combinations of decisions within a system as a diagram.

21. DECISION TABLE

A decision table is a table containing various conditions that are possible in a given state of problem and the actions that are to be followed in each course.

PARTS OF DECISION TABLE

Condition Stub	Condition Entries
Action Stub	Action Entries

Part	Meaning
Condition Statements	State the several conditions to consider in making a decision
Condition Entries	Entries that complete condition statements using Y, N, -, etc.
Action Statements	actions to be taken when a certain combination of conditions exist.
Action Entries	Entries that complete the action statements using X, blank etc.
Rules	Unique combinations of conditions and actions
Header	Title identifying in the table.
Rule Identifiers	Codes R1, R2, R3... uniquely identifying each rule.
Condition Identifiers	Codes uniquely identifying each condition statements/entry.
Action Identifiers	Codes A1, A2, A3... uniquely identifying each action statement/entry.

22. BUSINESS PROCESS RE-ENGINEERING (BPR):

PM

- BPR is the fundamental rethinking, radical redesign of processes to achieve dramatic improvement, in critical measures of performance such as cost, quality, service & speed.
 - Dramatic Achievement** means to achieve 80% or 90% reduction in delivery time etc.
 - Radical redesign** means BPR is reinventing & not enhancing or improving.
 - Fundamental rethinking** eliminating business processes altogether if it does not add any value to the customer.

BPR Success factors

1. **Organization wide commitment:**
2. **BPR team composition:**
3. **Business needs analysis:**
4. **Adequate IT infrastructure:**
5. **Effective change management:**
6. **Ongoing continuous improvement:**

Six Sigma: Six Sigma is a set of strategies, techniques, and tools for process improvement.

BENEFITS OF FLOWCHARTS

1. ***Quicker grasp of relationships –***
2. ***Effective Analysis –***
3. ***Communication –***
4. ***Documentation –***

THE LIMITATIONS OF FLOWCHARTS ARE GIVEN BELOW:

- 1) ***Complex logic –***
- 2) ***Modification –***
- 3) ***Link between conditions and actions –***
- 4) ***Standardization –***

BPM Life Cycle (BPM-L) –

Business Process Management-Life cycle establishes a sustainable process management capability that empowers organizations to embrace and manage process changes successfully.

- 1) ***Analysis phase:***
- 2) ***Design phase:***
- 3) ***Implementation phase:***
- 4) ***Run and Monitor phase:***
- 5) ***Optimize:***

Total Quality Management (TQM) is a management mechanism **designed to improve a product or process** and aims at improving the quality of the products produced and the process utilized.

Classify each of the following items as belonging in the revenue, expenditure, human resources/payroll, production, or financing cycle.

- | | | |
|--|---|-------------------------------|
| (a) Purchase raw materials | (b) Decide how many units to make next month | |
| (c) Pay for raw materials | (d) Disburse payroll checks to factory workers | |
| (e) Hire a new assistant controller | (f) Update the allowance for uncollectible accounts | |
| (g) Establish a 10,000 credit limit for customer XYZ Company | | |
| (a) Expenditure Cycle | (b) Production Cycle | (c) Expenditure Cycle |
| (d) Payroll Cycle | (e) Payroll Cycle | (f) Financial Reporting Cycle |
| (g) Revenue Cycle | | |

[DO SOLVE ALL PRACTICALS FROM BOOK]

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