Week 1 –Process Improvement, (Innovation) & Value Creation

ACCT2522 Introduction

What Is Management Accounting?

Management Accounting is "the **processes** & techniques that focus on the efficient & effective use of organisational **resources**, to support managers in their tasks of enhancing both customer **value** & shareholder **value**."

Management Accounting Systems (MAS) –

MAS's produce the information required by managers to create value & manage resources".

- **Planning** – managers create long & short term plans *(budget)* to support strategies *(how should we compete?)*
- **Control** – 'managers evaluate performance against plans *(expected outcomes)* & take corrective actions'

Understanding Value, Resources, Processes & Value Creation

Value

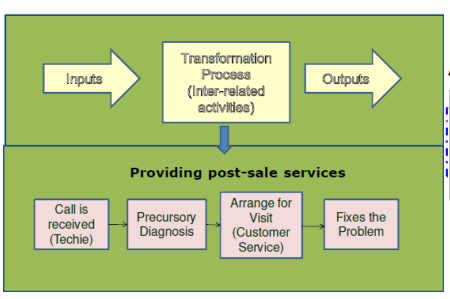
- **Customer Value** – 'the value that a customer places on particular features of a G/S'
- **Cost** – the cost of the product + its cost of use (e.g. car/petrol)
- **Quality** – 'the degree to which a G/S meets expectations' must be free from defects/deficiencies
- **Time** – Duration/Quality vs. Timeliness *(if you don't deliver on time, customers will be lost)*

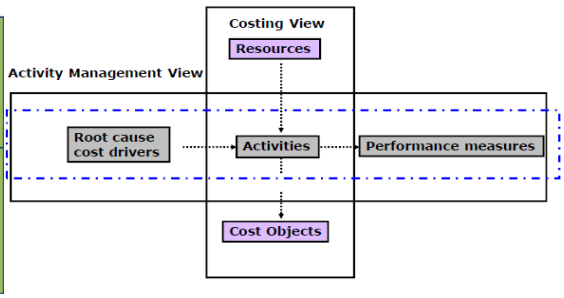
Resources (Factors of Production)

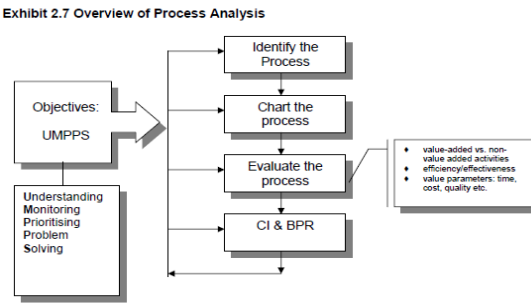
Resources are the financial *(cash, loans, equity)* & non-financial *(tangible – high tech machinery or intangible – highly trained employees or excellent processes)* means of an organisation. The firm's factors of production determine its ability to provide G&S, its capabilities & core competencies. MGMT ACCT helps manage resources via planning, costing & control.

Processes

A **Process** is a "group of interdependent activities which, when performed, utilise the resources of a business to produce a definite result" (BDMM) i.e. converting inputs to outputs – transformation process. Hence, **Activities** refer to a unit of work or step in a process. We adopt a **process based view** of the organisation because work is performed in a series of activities (process) that cross functional boundaries → We gain little by focusing on functional departments separately







Activity Based Management (ABM)

"ABM" involves using information from ABC to analyse activities, cost drivers & performance measure to enhance value".

Process Analysis (UMPPS)

Process Analysis (PA) is "the link between strategic goals & resourcing to achieve those goals" (BDMM p25). Firms can become more efficient via process analysis as it realigns task performance & resource use which enhances value. There are **4 objectives** *(tools)* of process analysis,

- **Understanding** *(business process map)* → *Understand interrelationships & linkages between resourcing & strategy*
- **Monitoring** *(statistical process control chart)* → *Control & Benchmarking, what can we improve – corrective action?*
- **Prioritising** *(Pareto diagram)* → *Prioritising improvement opportunities, ranked on criticalness & VA & NVA activities*
- **Problem Solving** → *PA shows where & why a problem occurs & provides a range of solutions + what if analysis*

These align well with the **4 steps** of process analysis:

1. **Identify the Process of Interest**
2. **Chart the Process**
3. **Evaluate the Process**
4. **Continuously Improve or Re-engineer the Process (Process Improvement) → CI or BPR**

Steps 1 & 2 – Identify & Chart the Process; **To identify** the process we use value chain analysis. We then break down the process into sequential activities via a **process chart** to identify critical processes & activities. *Which are wasteful/add value/have issues?*

Dry Cleaning Process Example: Sort clothes into 3 piles → Inspect for stains (diamond, if yes pre-treat, if no just load into machines & start machines) → Once dry clean is completed – Unload → Press Clothes → Combine pressed clothes based on orders & wrap in plastic → random checks to ensure items in order are present.

Example: Dry Cleaning Process

Identify a non-value adding activity!

- Write down customer info/instructions (e.g., collection times)
- Repeat customer info/instructions
- Sort clothes into 3 piles – dark, beige, white
- Inspect for stains
- Pressed clothes are combined based on orders and wrapped in plastic
- Checks at random to make sure all items in the order are present

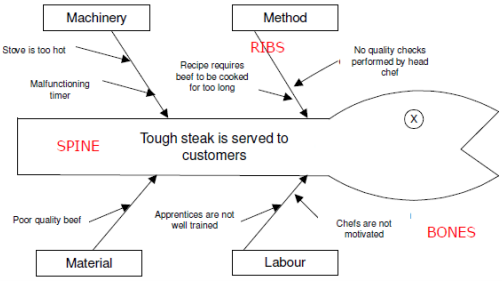
Step 3 – Process Evaluation – Are Activities…

- **Value Added (VA) or Non Value Added (NVA)?**
  - **VA** – increases customer satisfaction or is critical to remain in business
    - *Are customers willing to pay? Or will removal reduce service or product quality potential? Does it bring G/S 1 step closer to completion? E.g. Assembling*
  - **NVA** – does not add value to a G/S from the customer's or firm's perspective
    - Potential Grey Areas → *Storage (theory – NVA because of JIT), car inspection, waiting, handling*
- **Efficient, Effective or Both?** Trade-offs – higher effectiveness may require more resources
  - **Efficiency** – ability of activities to use fewest possible resources, maximising output for a given amount of input
    - *# Calls / Hr. (^Resource Usage)*
  - **Effectiveness** – ability of activities to meet customer/business needs or achieve desired goals *(goal attainment)*
    - *Quality of Calls & Problem Resolvement*
  - What makes a **good measure** of Efficiency or Effectiveness? Measures are part of the **feedback system**
    - Measure not action! Understandable, Comparable *(Objective – e.g. # of complaints),* Specificity
- **Customer Value Parameters – Valuable in Terms of Time, Cost or Quality?**
  - **Cost** – *amount of resources consumed in process,* ABC technique, pressure to reduce costs of G&S 4 customers
  - **Quality** – defect rate & variability *e.g. 500ml in a 700ml bottle*
  - **Time** – duration *(production time)* vs. timeliness *(delivery on time)*

USEFUL EVALUATION TOOLS

- **Root Cause / Driver Analysis –** Why did something happen?" Identifies root cause cost drivers of activities"
  - Choose 1 Main reason/cause of an activity to be performed & its costs to be incurred
  - *E.g. burnt toast – insufficient staff or timer malfunction*
  - *E.g. a forklift may need to move materials around – Plant Layout Issue*
- **Fishbone Diagrams** (Cause (of poor performance) & Effect)
  - **Spine** – 'the primary problem to be solved'
  - **Ribs** – 'major potential causes' – *machinery, method, material, labour*
  - **Bones** – 'identify possible causes of the main causes'
- **Statistical Process Control Chart**

•Example: Fishbone Diagram



- Assess variations in processes & address causes of large variations *(above limits)→ non-random disturbances*

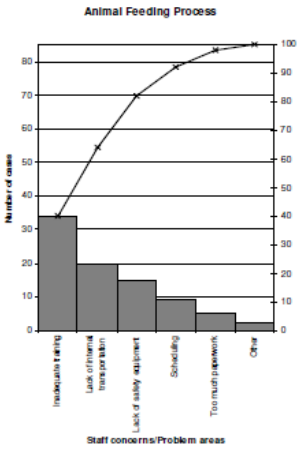
➢ **Pareto Diagrams -** prioritising improvements
- Shows a graphical representation of the causes of a problem, showing the frequency of each cause

Step 4 - Process Improvement

- **Activity Elimination** – eliminate activities to lower resource usage *e.g. eliminate storage and use JIT (NVA activities)*
- **Activity Selection** – choose a lower cost activity *e.g. auto instead of manual*
- **Activity Reduction** – reduce resources consumed by an activity *e.g. reduce setup time via employee training*
- **Activity Sharing** – economies of scale *e.g. design products with similar components*

BPR involves a radical redesign of a firm's processes to achieve large gains in cost, quality or time/delivery . It's an attempt to redesign its processes to eliminate NVA activities & enhance VA activities, *automation of customer service.* **Continuous improvement** → *finding a more efficient way for labour to assemble PC's.* CI & BPR are not mutually exclusive.

	Business process re-engineering (BPR)	Continuous improvement (CI)
1. Scale of change	Radical	Incremental
2. Personnel Involvement	Cross-functional teams	Everyone
3. Timing	One-off	Ongoing



Week 2 – Cost Basics

"**Costs are resources given up to achieve a particular objective**" It is used for both FA *(inventory valuation)* & MA *(pricing)*.

2. Cost Behaviour Patterns

Cost behaviour is the relationship between cost & level of activity *(cost driver)*. It is described over a relevant range.

- ***Variable Costs*** – costs that change in direct proportion to a change in the level of activity
- ***Fixed Costs*** – costs that remain unchanged, even if activity levels change
- ***Step Costs*** – a cost that remains fixed over a wide range of activity levels but 'jumps' to a different amount for levels outside the range
- ***Semi-Variable or Mixed Costs*** – a costs consisting of both fixed & variable components
- ***Curvilinear Costs*** – costs displaying behaviour that can be represented by a curved line

Understanding cost behaviour *(accurate costing)* leads to better cost prediction *(better planning (resources), control, decision making).* Other considerations include;

- **Time Horizon** – how far ahead you are planning for
- **Types of Costs**
  - **Engineered Costs** – costs that have a defined physical relationship to level of output
  - **Committed & Discretionary Costs** – do not vary with any level of activity *e.g. RnD*

Traceability

The purpose of tracing costs is so we can assign costs to a cost object.

➢ ***Direct*** → Can identify, or **trace** the **cost to** the **cost object** ***AND*** in an **economically feasible manner**

➢ ***Indirect*** → 1 or 0 of the above criteria apply