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NEPAL

GHAR GHAR MAA SWASTHYA

Report: CRS Workshop on Costing and Pricing

August 2012

Submitted by: MART India

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Background

Ghar Ghar Maa Swasthya consists of two components. Under the first component, USAID funds CRS for social marketing activities, focusing on sustainability through commercial marketing in the urban areas and promoting subsidized products in the rural, hard-to-reach areas. Under the second component, USAID funds Family Health International (FHI 360), to assist CRS to strengthen its organizational capacity and to design and implement behavior change communication activities, such as generic campaigns promoting family planning best practices.

In this context FHI 360 organized the “Cost Structures and Pricing Workshop for CRS staff in 13-14 August 2012.

Objectives

The objective of the workshop was to impart skill to CRS staff to enable them to calculate total unit cost of its commodities and services.

Facilitation Team and Participants

The workshop was well attended by 26 participants. The participants were senior level staff from Nepal CRS Company and FHI 360/GGMS project (see Annex I for a full list of participants). The lead trainer of the workshop was Ms. Latika Tandon, of MART/India. Mr. Benjamin Mathew, also from MART/India co-facilitated the workshop

Workshop Activities

DAY ONE

On 13 August 2012, the workshop was started in the conference hall of Chhahari training center. Mr. Hare Ram Bhattarai, Senior Tech. adviser of FHI 360 opened the workshop and welcomed the participants.

The workshop started in the morning with participants’ introduction where all the participants and facilitators introduced themselves. The lead facilitator then proceeded to explain the background, concept, methodology, content and schedule of the workshop that would take place over the next two days.

After that the lead facilitator explained and discussed about cost, accounting and pricing.

This session was conducted in a participatory and discussion based approach which is more effective than another methods. The discussion focused on real problems faced by CRS in respect of calculating the cost of its commodities.

The first session focused on propose and objectives of the general costing principles, overall approach, roles and responsibilities, terms and definitions, cost classifications etc. The lead facilitator explained above topics using different techniques like a quiz contest, group discussion, and question answers methods.

The next session started after lunch break. This session totally concentrated on understanding about Cost. Participants and facilitators discussed about determining unit costs, cost allocation, and current scenario of CRS's cost analysis.

All the participants actively participated and cleared their confusion regarding the concept and calculation of cost.

DAY TWO

On this day all sessions were facilitated by LatikaTandon. The total duration of the day was divided into two sessions; before and after lunch sessions. Main purpose of pre-lunch session was to provide detail information about market positioning, develop marketing strategy, evaluate product price relationship and assess external/environmental factors. There was a good interaction between participants and trainer.

In the final after lunch session of the workshop several topics like product lifecycle, assessment of internal factors, and determination of price, re-assessment and altering the price. This session was facilitation by Ms. LatikaTandon who tried to answer questions raised by the participants.

At the end of the day, a 20 minute quiz was conducted to evaluate learning level of the participants.

The participants received their participation certificates during the closing session. This session was chaired by Mr. Peter Oyloe, Chief Party of FHI 360 and Ms. Latika Tandon, the lead facilitator from MART/India. Soon after, the workshop was officially closed by Mr. Peter Oyloe, Chief Party of FHI 360.

Workshop Evaluation

The evaluation of the training workshop found the followings

❖ Learning

The workshop helped the participants to

- develop communication skills
- develop presentation skills by improving body language, eye contact, respect for each other's ideas etc.
- increase confidence level

- learn ways to concentrate in subject matter by avoiding various distractions

❖ **Strength of Workshop**

- The participant said that the workshop agenda was useful and appropriate for CRS
- Trainers were able to clearly explain and present the subject matter
- The overall training environment was good and the workshop ended peacefully
- There was no complaint about the logistics, training venue

❖ **Weakness of the Workshop**

- The time schedule was not strictly maintained. The sessions started late and could not complete on time.
- Some participants had language problem as the sessions were mostly conducted in English
- Sometimes the participants were seen to be bored because of the monotonous way of conducting the session. There were no energizers and/or games to boost the energy level of the participants.
- Only one facilitator, Ms. Latika Tendon, handled almost all the sessions. It would have been more interesting if both facilitators had facilitated.

Recommendations

- If possible, provide refresher training in future
- Participants should practice the learnings from the workshop in real work environment.

Annex-I: List of Participants

Cost Structures and Pricing Workshop for Nepal CRS Company

13-14 August, 2012

Participation Record

S.No	Name	Designation	Organization
1	Jyoti Bhagat Shrestha	Finance Manager	Nepal CRS Company
2	Sitaram Subedi	Sr. Finance officer	Nepal CRS Company
3	Ajaya Risal	Sr. Finance officer	Nepal CRS Company
4	Rohit Shrestha	Director	Nepal CRS Company
5	Niraj Khanal	Field Manager	Nepal CRS Company
6	Rajiv Sharma	Sr. Officer MIS	Nepal CRS Company
7	Saroj Adhikari	Area Manager	Nepal CRS Company
8	Suresh Bam	Adnim/finance Officer	Nepal CRS Company
9	Ramesh Malla	Area Manager	Nepal CRS Company
10	Sanjay Raj Sharma	Admin/Finance Officer	Nepal CRS Company
11	Sudarshan Shrestha	Area Manager	Nepal CRS Company
12	LaxmiBaniya	Admin/Finance Officer	Nepal CRS Company
13	Suraj Sharma	Area Manager	Nepal CRS Company
14	Shyam Parajuli	Admin/Finance Officer	Nepal CRS Company
15	Govinda Thapa	Area Manager	Nepal CRS Company
16	SanjuJha	Admin/Finance Officer	Nepal CRS Company
17	Uttam Raj Regmi	Marketing Director	Nepal CRS Company
18	SushmaChitrakar	Training Manager	Nepal CRS Company
19	Sabina Baniya	Marketing Officer	Nepal CRS Company
20	Amit Pandey	Sr.Marketing Officer	Nepal CRS Company
21	Laxman Nepali	Training Manager	Nepal CRS Company
22	Mahesh Prasad Pokharel	Admin/Logistic Director	Nepal CRS Company
23	RishikeshKafle	Logistic Manager	Nepal CRS Company
24	Anjeeta Shrestha	Finance and Admin. Director	FHI 360
25	CP Bhandari	Senior Accountant Officer	FHI 361
26	Amar Chand	Training and Facilitator (Intern)	FHI 362
27	Benjamin Mathew	Trainy and Facilitator	MART
28	LatikaTandon	Trainer	MART

Annex-II: Workshop Schedule

Cost Structures and Pricing Workshop

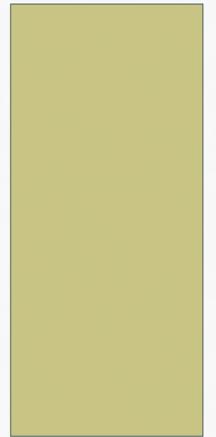
13-14 August, 2012

Kathmandu, Nepal

Time	Description	Remarks
13 August, 2012		
9:00 am- 12:30 pm (Tea : 11:00 am)	Module 1.1: INTRODUCTION 1.1.1 Purpose and objectives of the General costing principles 1.1.2 Overall approach, roles and responsibilities Module 1.2: Understanding Cost 1.2.1 Introduction 1.2.2 Terms and definitions 1.2.3 Cost Classifications <ul style="list-style-type: none"> • Direct costs and indirect cost • Fixed costs and semi-fixed cost • Marginal Costing-Break even analysis 	
12:30 pm-1:30 pm	Lunch Break	
1:30 pm-5:00 pm (Tea: 3:00 pm)	Module 1.2: Understanding Cost (Continued) 1.2.4 Determining unit costs 1.2.5 Cost Allocation (cost sharing)	
14 August, 2012		
9:00 am-12:30 pm (Tea: 1100 am)	Module 2.1: Determine Market Positioning Module 2.2 Develop marketing strategy Module 2.3 Evaluate products price relationship Module 2.4 Assess external/environmental factors	
12:30 pm-1:30 pm	Lunch	
1:30 pm – 4:30 pm (Tea: 300:00 pm)	Module 2.5: Align with the product lifecycle Module 2.6: Assess internal factors Module 2.7 Determine pricing Module 2.8 Re-assess and alter pricing	
4:30-5:00 pm	High Tea	

Annex-III: Workshop Training Materials

CRS WORKSHOP ON COSTING AND PRICING



TOPICS FOR DISCUSSION

MODULE 1: COSTING

MODULE 2 : PRICING

MODULE 1

UNDERSTANDING COSTS

TOPICS FOR DISCUSSION

Module 1 Costing

- 1.1: Introduction
- 1.1.1 Purpose and objectives of the General costing principles
- 1.1.2 Overall approach, roles and responsibilities

Module 1.2 Understanding Cost

- 1.2.1 Introduction
- 1.2.2 Terms and definitions
- 1.2.3 Cost classifications
- 1.2.4 Determining unit costs
- 1.2.5 Cost Allocation (cost sharing)

WHAT IS COST

- Cost = Factor Reward
- To manage the cost it is necessary to understand its
 - Function
 - Behaviour
- In accounting, the term cost refers to the monetary value of expenditures for raw materials, equipment, supplies, services, labor, products, etc. It is an amount that is recorded as an expense in bookkeeping records.

PURPOSE & OBJECTIVES OF GENERAL COSTING PRINCIPLES

- To ensure that we get the **best value for money** in service delivery, a sound understanding of cost drivers, cost structures and service costing is needed.
- Good quality cost information is just as important to not-for-profit service entities as it is to other organizations.
- Understanding cost implications of providing products and services, managing these costs and providing the optimum mix of products and services with the **funding available will help improve outcomes for the social objectives** in question

PURPOSE & OBJECTIVES OF GENERAL COSTING PRINCIPLES

- Understanding of costs at a granular level also provides a clear understanding of **funding required** for making available products and services to the last mile and making a **business case to the donors**
- Basic, consistent and reliable costing data is necessary for any organization in order for **good planning** to be possible.
- The general costing principals are intended to be a useful reference and equally applicable for organizations with social objectives when planning, developing and reviewing their services rendered. **Social organizations are equally accountable**

PURPOSE & OBJECTIVES OF GENERAL COSTING PRINCIPLES

The key objectives of the general costing principles to assist CRS would be :

- Improving understanding of cost structures and cost drivers
- Standardize costs **across products and budgets**
- Improve cost control and **linkage to objective outcomes**
- Using indicative unit costs as an additional data source for **analyzing program viability**
- Provide one data source to improve validation and cross analysis and approaches to **support funding of new and existing programs**

METHODS OF COSTING

- Standard Costing
 - “A **predetermined** cost which is calculated from **managements standards of efficient operations** and the relevant necessary expenditure.” They are the predetermined costs on technical estimate of material labor and overhead for a selected period of time and for a prescribed set of working conditions. In other words, **a standard cost is a planned cost for a unit of product or service rendered.**
- Activity Based Costing (ABC)
 - **Activity-based costing (ABC)** is a costing methodology that identifies activities in an organization and **assigns the cost of each activity with resources** to all products and services **according to the actual consumption by each.**

ADVANTAGES - STANDARD COSTING

Efficiency measurement

The comparison of actual costs with standard costs enables the management to evaluate performance of various cost centres

Management by Exception

The targets of different individuals are fixed if the performance is according to predetermined standards. In this case, there is nothing to worry. The attention of the management is drawn only when actual performance is less than the budgeted performance. **Management by exception means that everybody is given a target to be achieved and management need not supervise each and everything.**

Cost control

- Every costing system aims at cost control and cost reduction. The standards are being constantly analyzed and an effort is made to improve efficiency. Whenever a **variance** occurs, the reasons are studied and immediate corrective measures are undertaken.

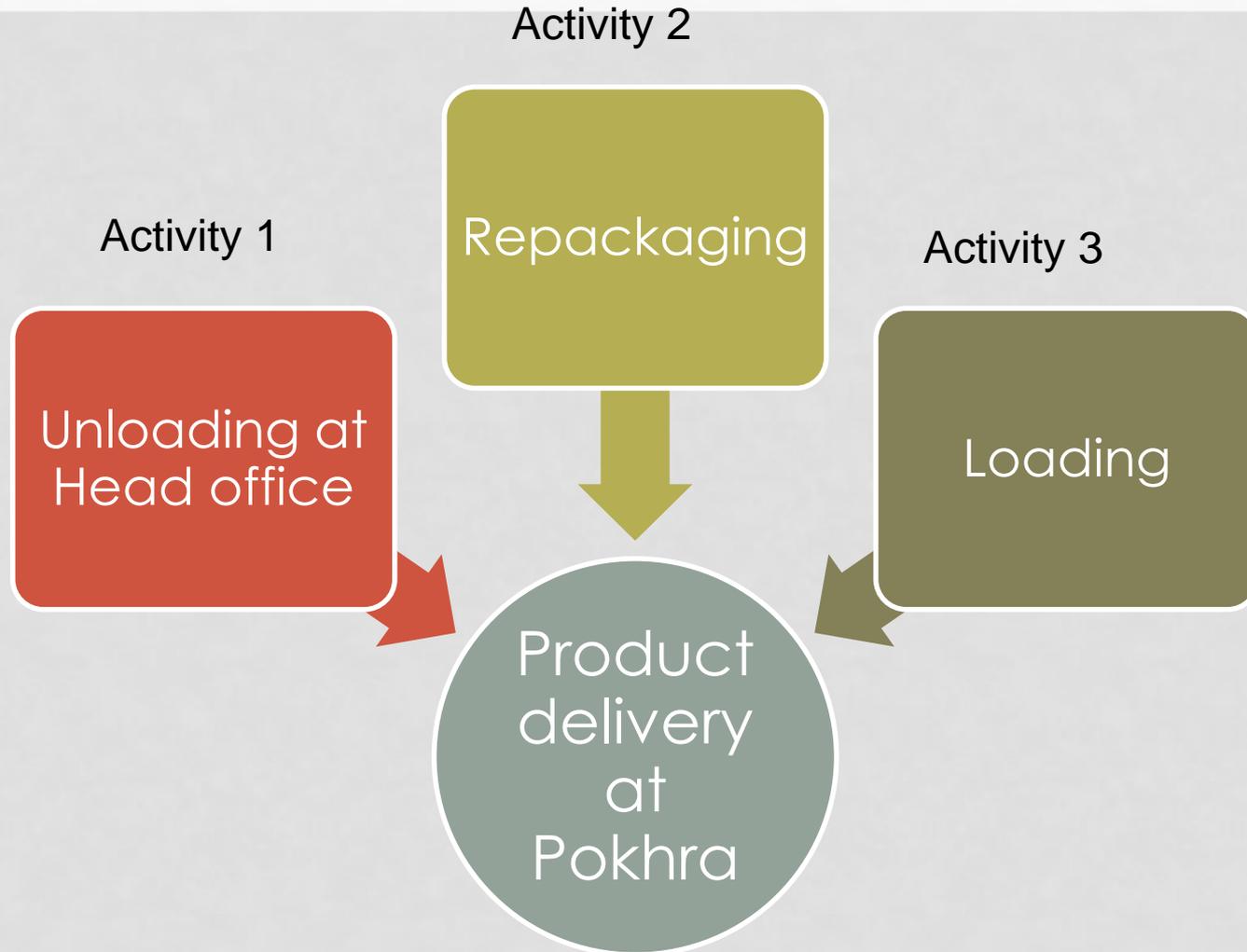
ADVANTAGES – ABC

Allows an organization to **determine the actual cost associated** with each product and service produced by the organization without regard to the organizational structure.

It is developed to provide **more-accurate** ways of assigning the costs of indirect and support resources to activities, business processes, products, services, and customers.

An organization performs activities to do its business. These activities define the kind of business you are in: a ship owner has an activity to unpack boats; an accounting firm prepares tax returns; a manufacturer produces products; a council delivers services; a university teaches students, **CRS delivers family planning and reproductive health products and services**, . All activities consume resources. It is the consumption of these resources that adds to overhead costs. **The method allows for true allocation of costs to each product or service offered.**

ABC- ILLUSTRATIVE



CLASSIFICATION OF COSTS

On the Basis of

Nature

Function

Behavior

Direct

Indirect

Prime

Factory

Office

Selling

Fixed

Variable

TYPES OF COSTS

- Direct
- Indirect
- Variable
- Fixed (including overheads)
- Semi Variable

DIRECT VS. INDIRECT COSTS



Direct costs are those for activities or services that benefit specific projects, e.g., salaries for project staff and materials required for a particular project. Because these activities are **easily traced to projects**, their costs are usually **charged to projects** on an item-by-item basis.

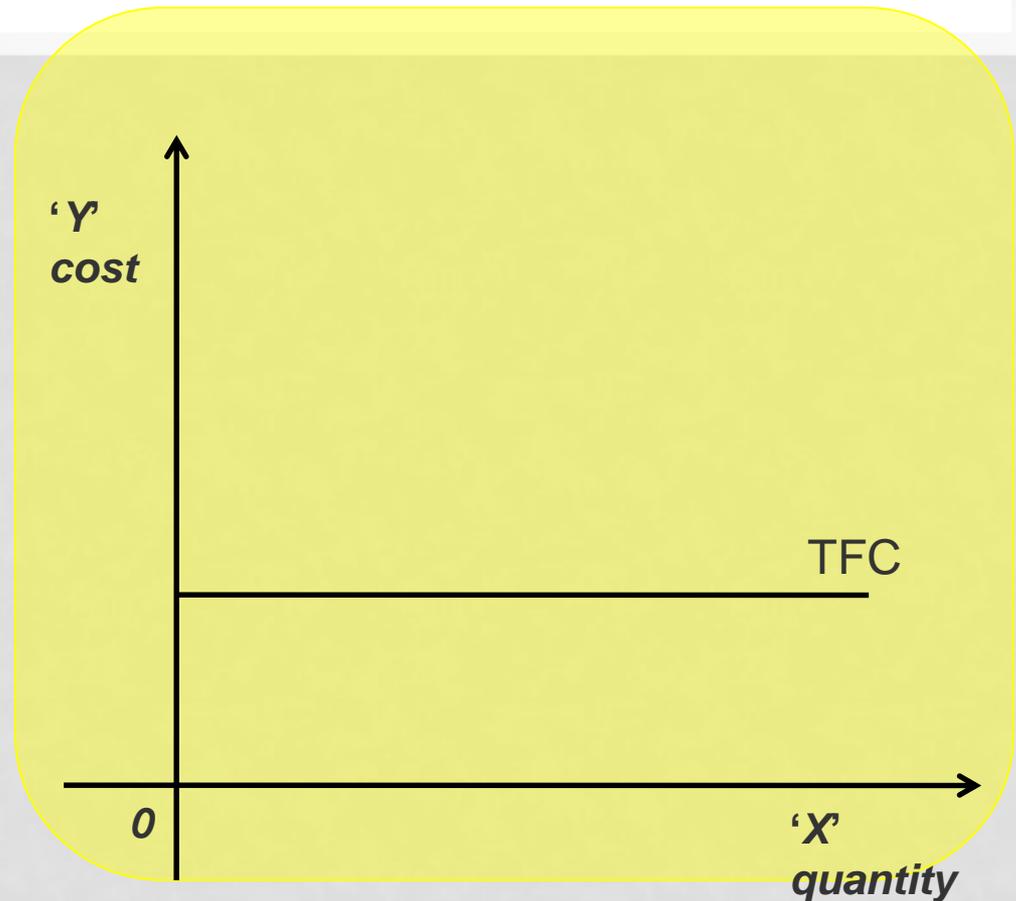
Indirect costs are those for activities or services that **benefit more than one project**. Their precise benefits to a specific project are often difficult or impossible to trace. For example, it may be difficult to determine precisely how the activities of the director of an organization benefit a specific project.

DIRECT VS. INDIRECT COSTS- EXAMPLES

- **Costs usually charged directly**
 - Project staff
 - Consultants
 - Project supplies
 - Publications
 - Travel
- **Costs usually allocated indirectly**
 - Utilities
 - Rent
 - Audit and legal
 - Administrative staff
 - Equipment rental

FIXED COSTS

- The costs which remains constant irrespective of the volume of product produced or sold.
- Not changing in Total
- Always changing in per unit i.e. more units produced lower is the AFC as it is allocated to more units



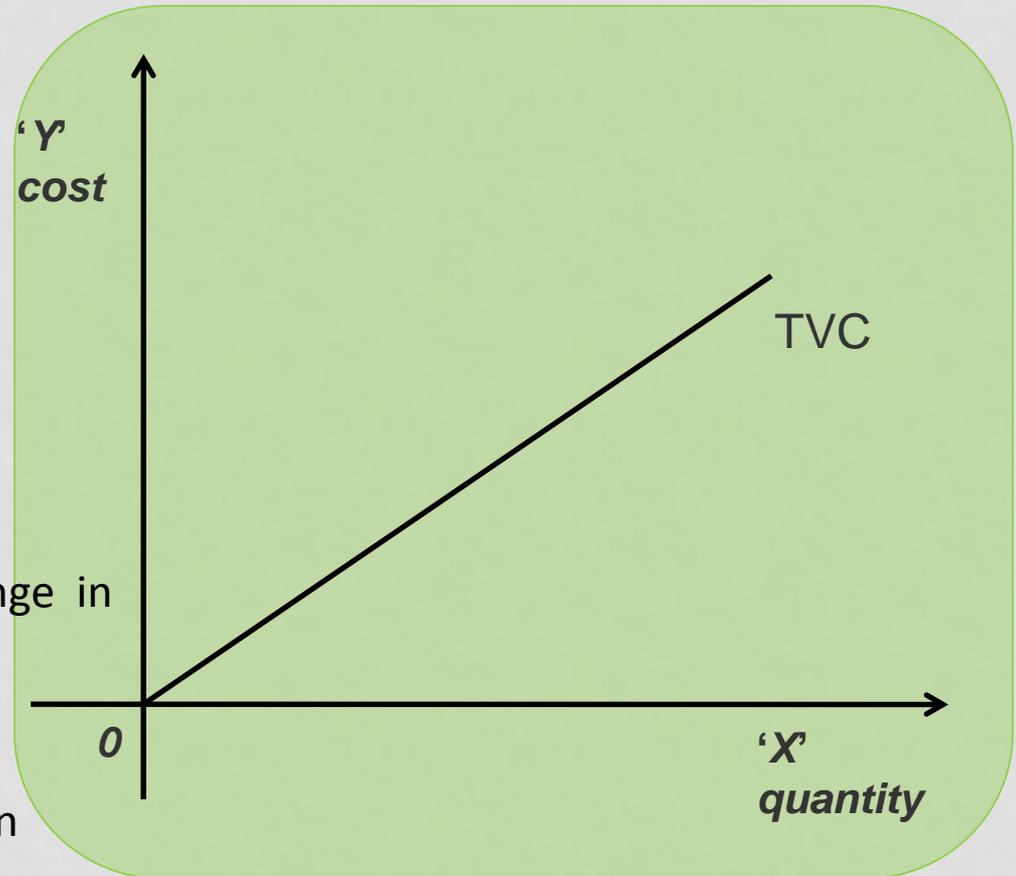
Capacity utilization is the key.

VARIABLE COSTS

- The costs which change **proportionately with the volume** of product produced or sold.
- No change in Per Unit
- Continuous change in Total i.e. TVC increases with TR

Management of Variable Costs

- Negotiating for a lower price
- Substitution of raw materials or change in mix without change in quality
- Alternate sourcing of raw materials
- Technological breakthrough
- Improved efficiency in energy utilization
- Improvement in input-output ratio
- Realizing higher value for by-products or wastages



SEMI VARIABLE COSTS

Variable Costs

Quantity	Amount	Per Unit
1	10	10
1,00,000	10,00,000	10
10,00,000	1,00,00,000	10

Normally, pure Variable or pure Fixed costs are rare to occur. Many costs always change in Total and they always change in Per Unit also.

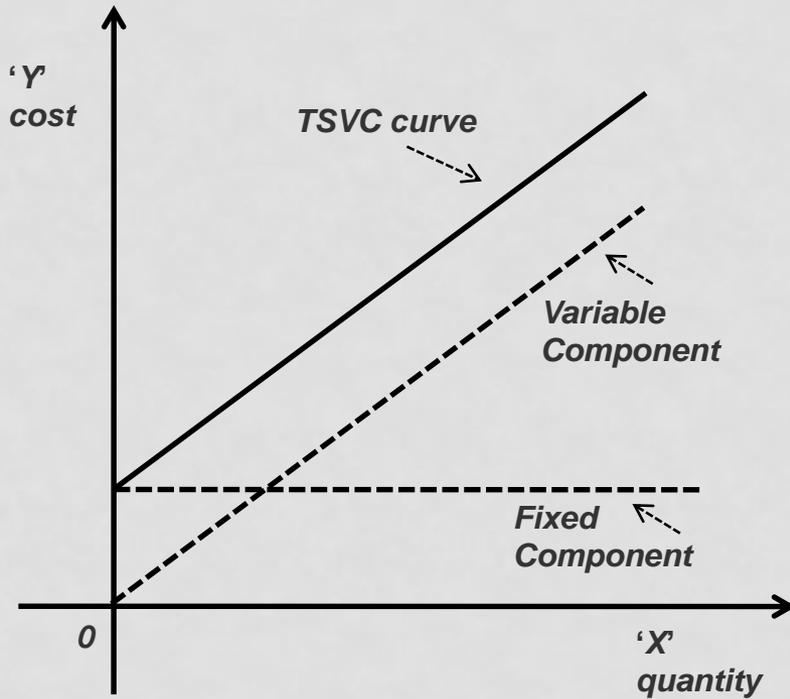
Fixed Costs

Quantity	Amount	Per Unit
1	10,00,000	10,00,000
1,00,000	10,00,000	10
10,00,000	10,00,000	1

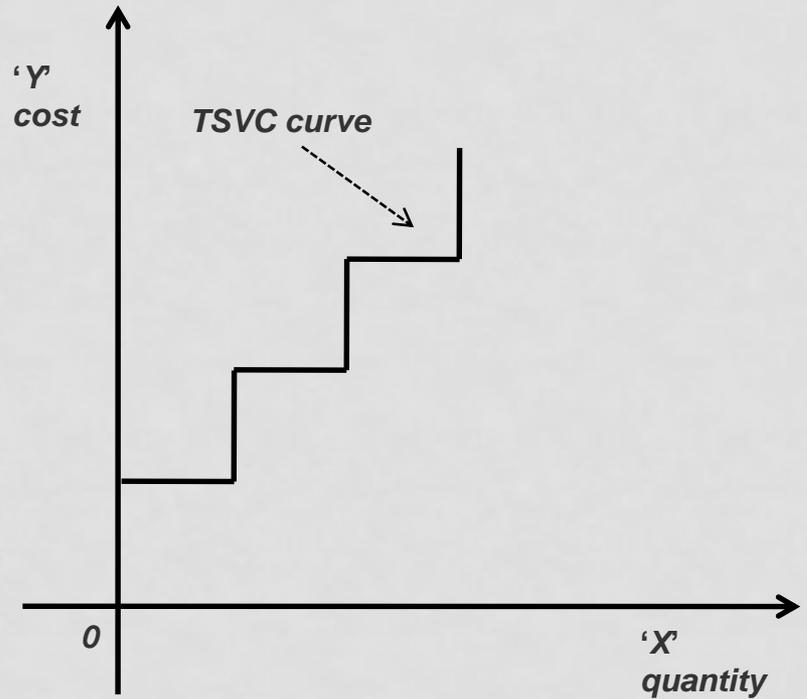
Semi Variable Costs

Quantity	Amount	Per Unit
10,000	10,00,000	100
20,000	15,00,000	75

SEMI VARIABLE



Classical TSVC curve



Another TSVC curve

EXERCISE:

SEGREGATE THE FOLLOWING COSTS INTO FIXED COSTS, VARIABLE COSTS AND SEMI VARIABLE COSTS

- Rent of the factory or office building
- Depreciation
- Raw material
- Salary of the foreman
- Salary of contract labor
- Payment to the software engineers
- Telephone bill
- Electricity bill
- Administration expenses

PROFIT

- Revenue earned by the firm less expenses associated with the revenue earning activities
- Illustration: A trading firm buys 10,000 pieces of certain equipment in a financial year. Each costs Rs. 1,500 plus Rs. 100 towards transportation & duties. Out of these it sold 8,000 units for Rs. 1,800 each.
- Calculate the Profit

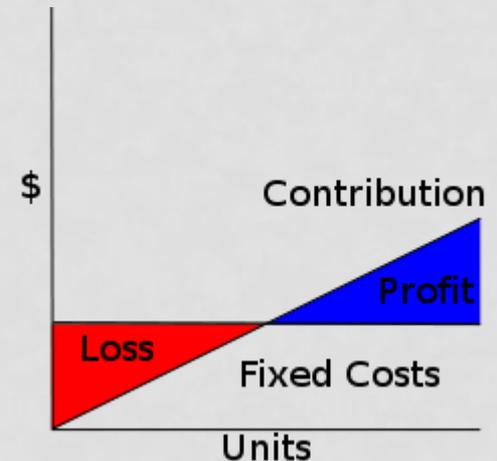
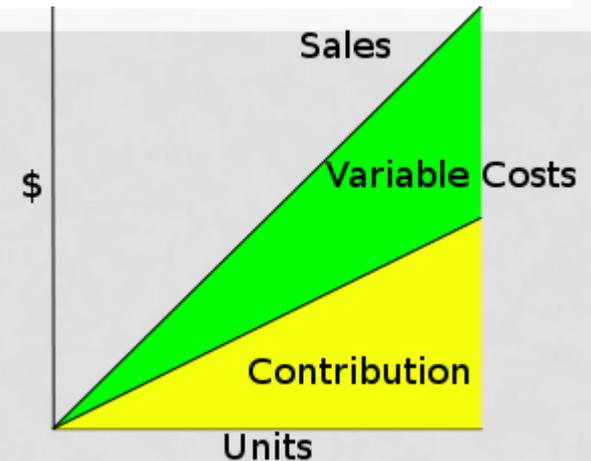
CONTRIBUTION MARGIN

Contribution Margin is the **marginal profit per unit sale**.

The **Unit Contribution Margin (C)** is Unit Revenue (Price, P) minus Unit Variable Cost (V):

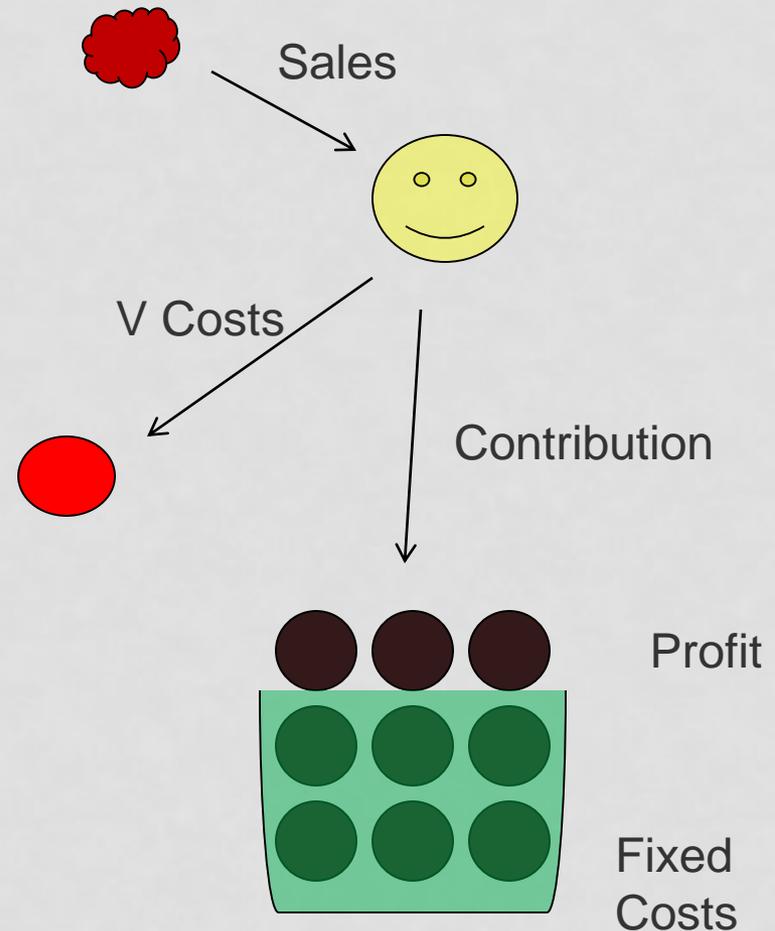
$$C = P - V$$

Contribution margin can be thought of as the fraction of sales that contributes to the offset of fixed costs.



IMPLICATIONS

- Every unit sold does not give us profit, but it contributes to cover the fixed costs.
- Till the time fixed costs are not fully covered, there is a loss
- Excess of contribution over fixed costs = Profit

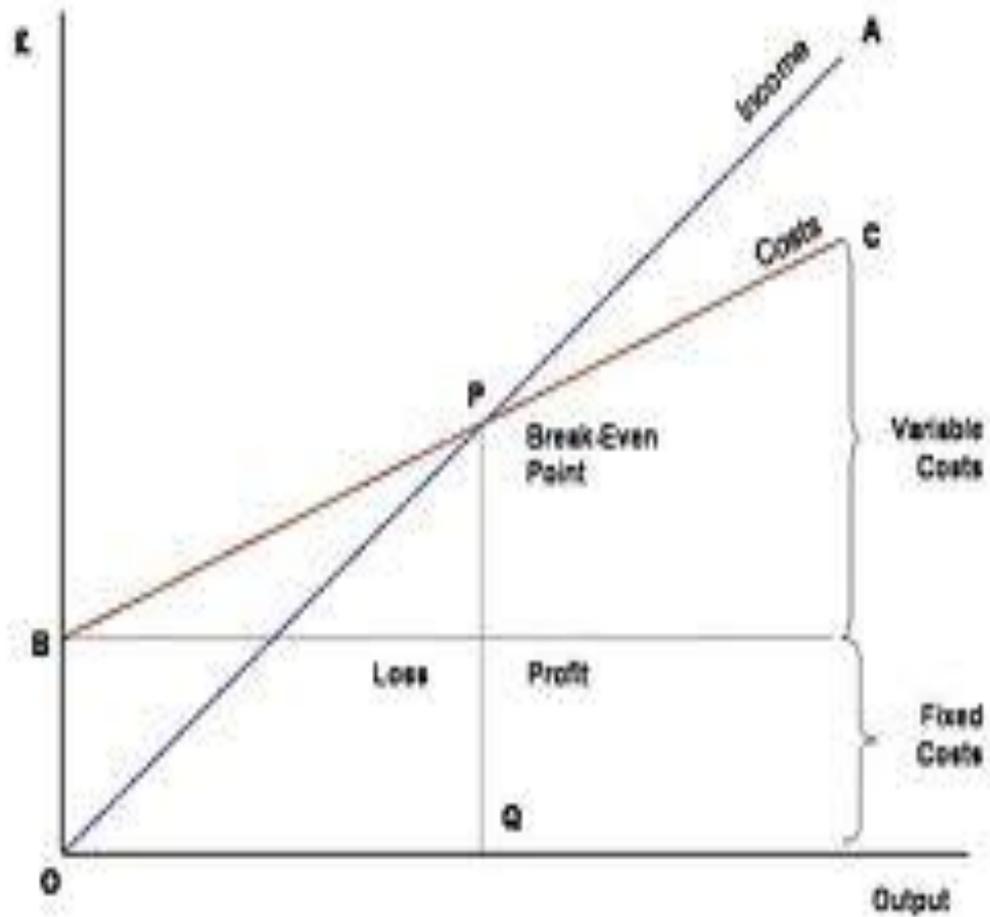


BREAK EVEN ANALYSIS

- B E P = The point of no profit no loss
- B E Q = The point where total contribution is equal to the total fixed costs
- B E Q =
$$\frac{\text{Total Fixed Costs } F}{\text{Contribution per unit } (P-V)}$$
- B E Q (target profit) =
$$\frac{\text{Total Profit} + \text{Total Fixed Costs}}{\text{Contribution per unit}}$$
- B E Sales (Rs.) =
$$\frac{\text{Total Fixed Costs } F}{1-V/P}$$

(P= Price; V= Variable Cost)

BREAK EVEN ANALYSIS



CALCULATE BE

- Fixed Cost of co is 280,000/- . Interest cost is 20,000/- . The unit selling price is Rs. 8/- and unit VC is 5/- . Find the BE Quantity
- What is the profit at 140,000 units?

CALCULATE BE

- Fixed Cost 2,80,000 Plus
- Interest 20,000
- Total 3,00,000

- B E Q = Total Fixed Costs F/ Contribution per unit (P-V)
 = 300000/ 3 = 100,000
- Profit(140,00 units) = (140000 – 100000) *3= 120,000

CONTRIBUTION EXERCISE

- A company dealing in 4 products (full capacity – total 800,000 units), all of which are currently at 1/3rd of their potential demand. It is planning to totally discontinue Product C & D due to their seeming losses, and for using the spare capacity to produce more of A & B. Advise the management about the viability of the decision.

Particulars	Product A	Product B	Product C	Product D
<u>Sales units</u>	<u>1,00,000</u>	<u>1,00,000</u>	<u>5,00,000</u>	<u>1,00,000</u>
Sales Amount	60,00,000	60,00,000	80,00,000	20,00,000
Variable costs	45,00,000	42,00,000	20,00,000	9,00,000
Fixed costs	12,00,000	12,00,000	60,00,000	12,00,000
(Allocated on the basis of output units)				
Profit/(Loss)	3,00,000	6,00,000	Nil	(1,00,000)

IS THE MGT DECISION OPTIMUM?

Since the fixed costs are 'allocated costs', they are irrelevant for decision making

Current scenario

Particulars	A	B	C	D	Total
Sales	6000,	6000,	8000,	2000,	22,000,
(-) V Costs	4500,	4200,	2000,	900,	11,600,
Contribution	1500,	1800,	6000,	1100,	10,400,
(-) F Costs					9600,
Profit					800.

Mgt Decision

Particulars	A	B	C	D	Total
Sales	18,000,	18,000,			36,000,
(-) V Costs	13,500,	12,600,			26,100,
Contribution	4,500,	5,400,			9900,
(-) F Costs					9600,
Profit					300

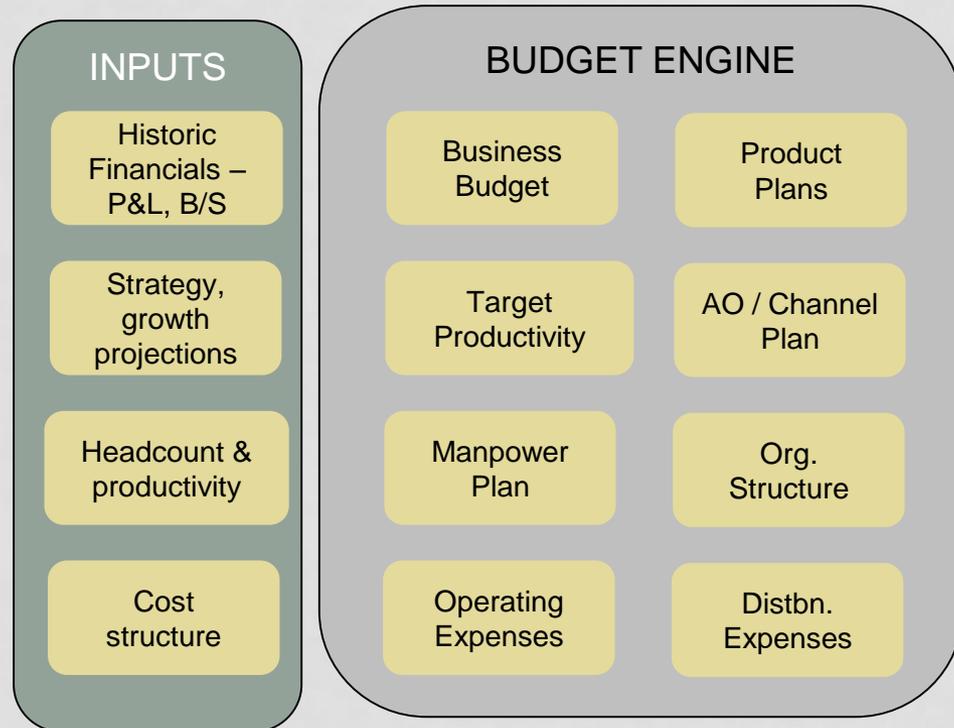
IS THE MGT DECISION OPTIMUM?

<u>Particulars</u>	<u>Product A</u>	<u>Product B</u>	<u>Product C</u>	<u>Product D</u>	Total
Sales units	300	300	200	0	800
Sales Amount	18000	18000	3200	0	39200
Variable costs	13500	12600	800	0	26900
Contribution	4500	5400	2400	0	12300
Fixed costs	1200	1200	6000	1200	9600
Profit/(Loss)	3300	4200	-3600	-1200	2700
Price per unit	60	60	16	20	
VC/unit	45	42	4	9	
Contribution per unit	15	18	12	11	

COSTS & BUDGETS

PRINCIPLES OF BUDGETING

Budgeting model schematic



WHY BUDGETING?

Compels managers to plan

Promotes coordination and communication

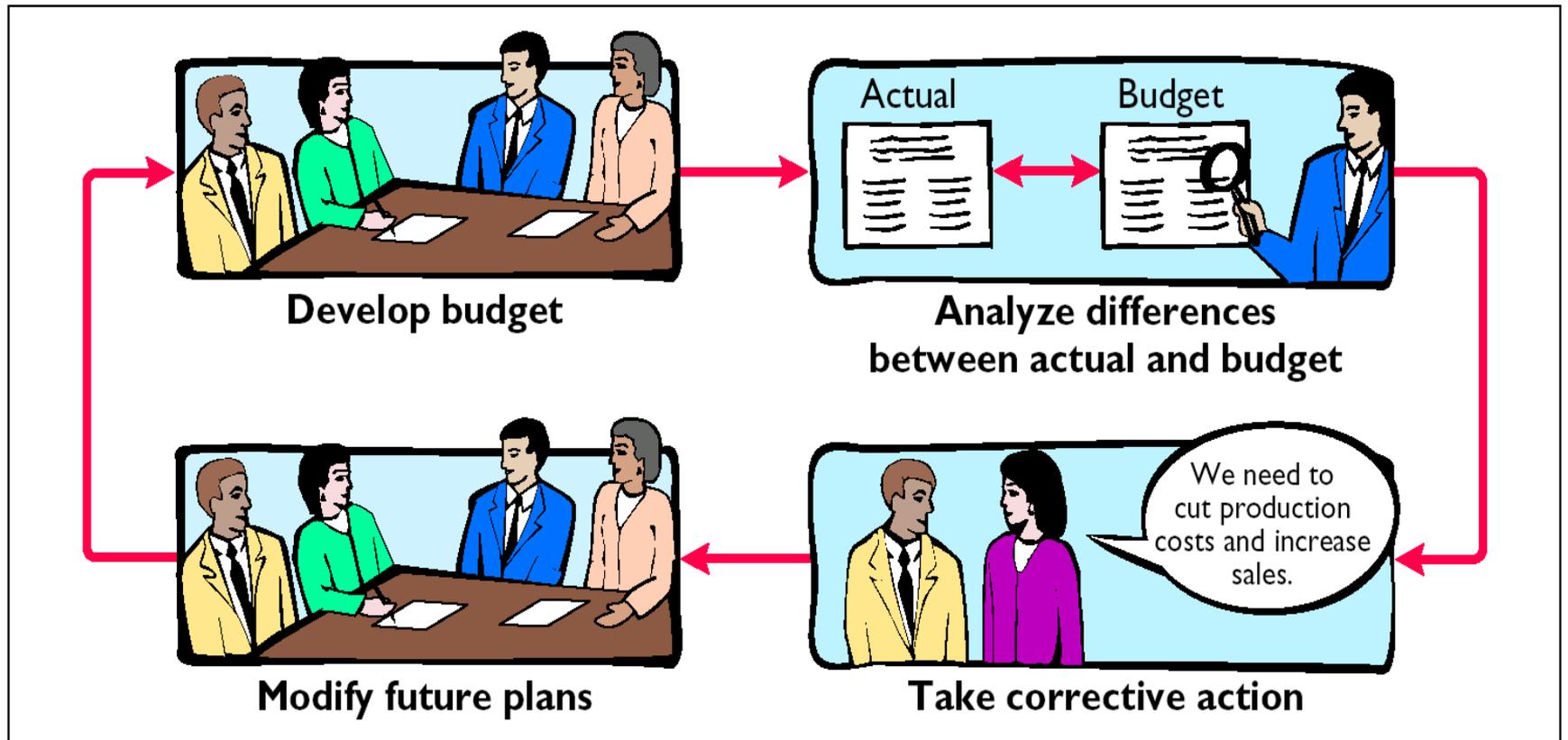
Helps managers evaluate performance

Motivates employees to achieve company goals

How Budgeting?

- Align budgets to strategy & strategic initiatives
- Ensure that they are adequate resources to implement the key projects and initiatives which deliver on strategic initiatives - Many strategic objectives are not achieved as they were not budgeted for adequately and there was lack of funds
- Budgets should look at operationalisation of departmental objectives
- Budget must take into account market realities
 - Sales budget for the year must be broken to quarters and months
 - All quarterly and monthly budgets may not be identical
 - Accordingly monthly cost budgets must be aligned
- Budgeting process is to recognize responsibility centers

Budgetary Control



EXPENSES ALLOCATION

Principle of operating expense allocation

Size of Business

- Allocation of opex based on size of business ratio
- Example: Director's fee, CEO & his office

Headcount Ratio

- Allocation of opex based on headcount ratio
- Example: Rental, Utilities

Transaction Volume

- Based on ratio of transactions associated with business

Time Allocation

- Based on time used of facility, service against capacity & cost

Space utilized

- Based on space such as utilities

COST SHARING PRINCIPLES ILLUSTRATIVE

Tracking a challenge



- Procurement costs-
- Inventory Holding costs-
- Manpower costs -
- Material Related -
- Premises costs -
- Utilities & communication -
- Transportation -
- Stationery -
- Entertainment -
- Admin/ other -
- Support services/ Customer servicing/ business related -
- Area Office costs -

COST SHARING PRINCIPLES ILLUSTRATIVE



Tracking a challenge

- Procurement costs- on actuals
- Inventory Holding costs- on actuals
- Manpower costs - on actuals or from total on size of business
- Material Related - direct allocation to products
- Premises costs - **size of business** or manpower, % space
- Utilities & communication - size of business or manpower, space
- Transportation - actuals, products (size of business)
- Stationery - actuals, size of business
- Entertainment - size of business
- Admin/ other - size of business
- Support services/Customer servicing/ business related - allocation on size of business
- Area Office costs - support different business Businesses allocation on size of assets, manpower, business

Types of Responsibility Centers

Types of Responsibility Centers



Expenses

~~Revenues~~

Cost center



Expenses + Revenues

Profit center



Expenses + Revenues + Return on Investment

Investment center

RESPONSIBILITY CENTERS

A sub-unit in an organization whose manager is held accountable for specified financial results.

Examples:

- *Cost center*: HR, Finance, IT, etc
- *Profit center*: SBU 1, SBU 2, SBU 3
- *Investment center*: Corporate TRY

RESPONSIBILITY ACCOUNTING SYSTEMS

- ① Prepare budgets for each responsibility center.
- ② Measure performance of each responsibility center.
- ③ Prepare timely performance reports comparing actual amounts with budgeted amounts.

VARIANCE ANALYSIS - SALES

Unfavourable

B
U
D
G
E
T
E
D

Variance

A
C
T
U
A
L

Favourable

Variance

B
U
D
G
E
T
E
D

A
C
T
U
A
L

VARIANCE ANALYSIS - COSTS

Favourable

B
U
D
G
E
T
E
D

Variance

A
C
T
U
A
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Unfavourable

Variance

B
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COST OF CAPITAL

FIRM'S COST OF CAPITAL

- Capital is the money businesses use for financing their operations.
- A company's cost of capital is simply the cost of money the company uses for financing.
- If a company only uses current liabilities and long-term debt to finance its operations, then it uses debt and the cost of capital is usually the interest rate on that debt.
- Cost of Debt Capital = Coupon Rate on Bonds (1 - tax rate)
- If a company is public and has investors, then the cost of capital is the cost of equity. Usually, this type of company has debt but it also finances with equity financing or money that investors supply. In this case, the cost of capital is the cost of debt and the cost of equity.
- The combination of debt and equity financing for a company is the company's capital structure.

FIRM'S COST OF CAPITAL

- Weighted Average of various sources
- Influenced by cost of each source
- Also, be weightage of that source in the overall capital mix
- $WACC = \sum W_i \cdot C_i$

QUIZ

- Using the data below calculate the cost of debt capital.
Rate of interest: 12%. Tax Rate: 30%
- a) 8.40%
 - b) 8.75%
 - c) 9.00%
 - d) None of the above

QUIZ

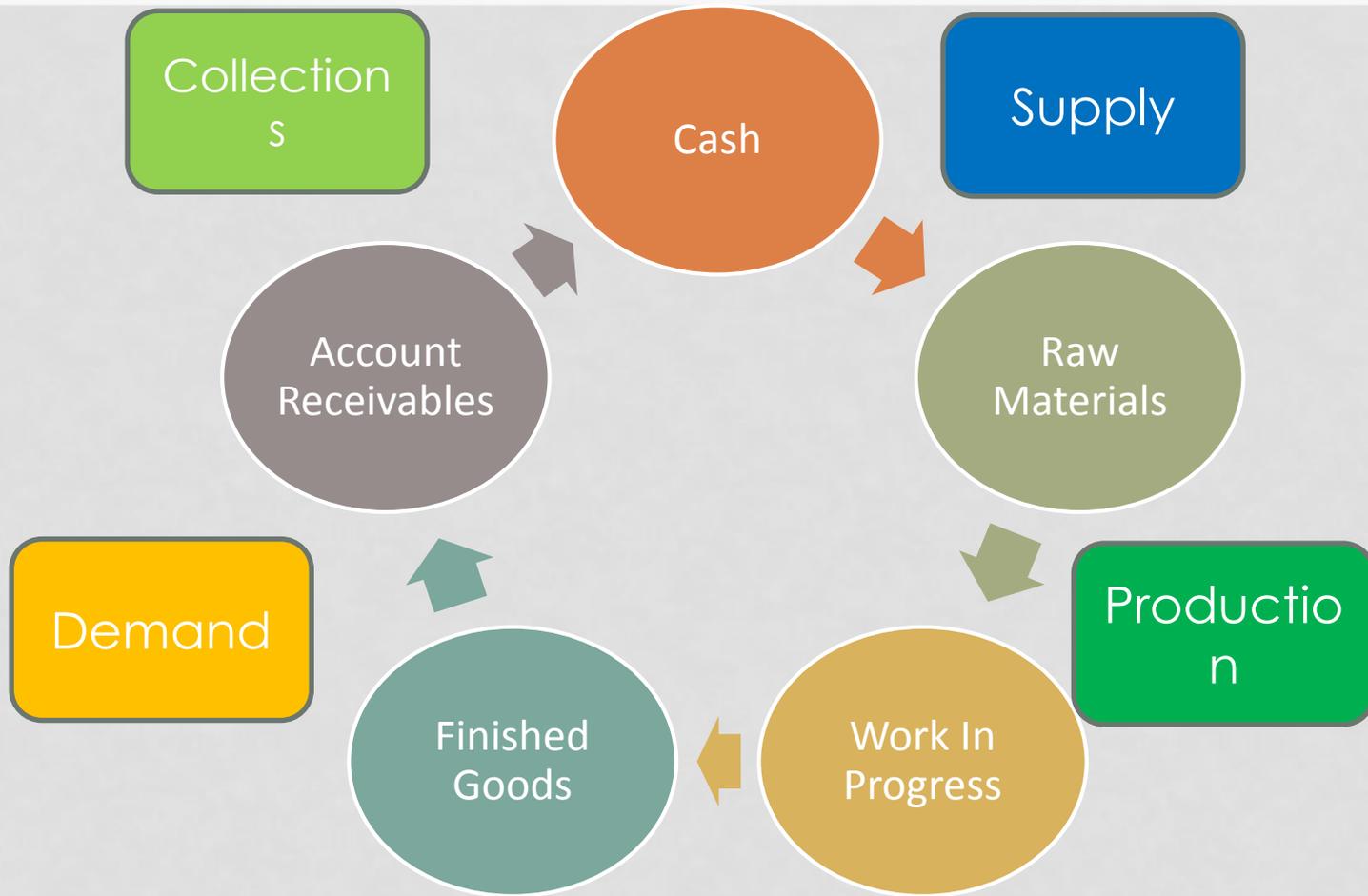
- IF a particular project is going to be financed with 60% equity & 40% debt and the cost of equity is 14% and the cost of debt is 9%, what is the weighted average cost of capital?
 - a) 11.5%
 - b) 12.0%
 - c) 11.2%
 - d) None of the above
- If the tax rate is 10% what is the cost of capital?

WORKING CAPITAL MANAGEMENT

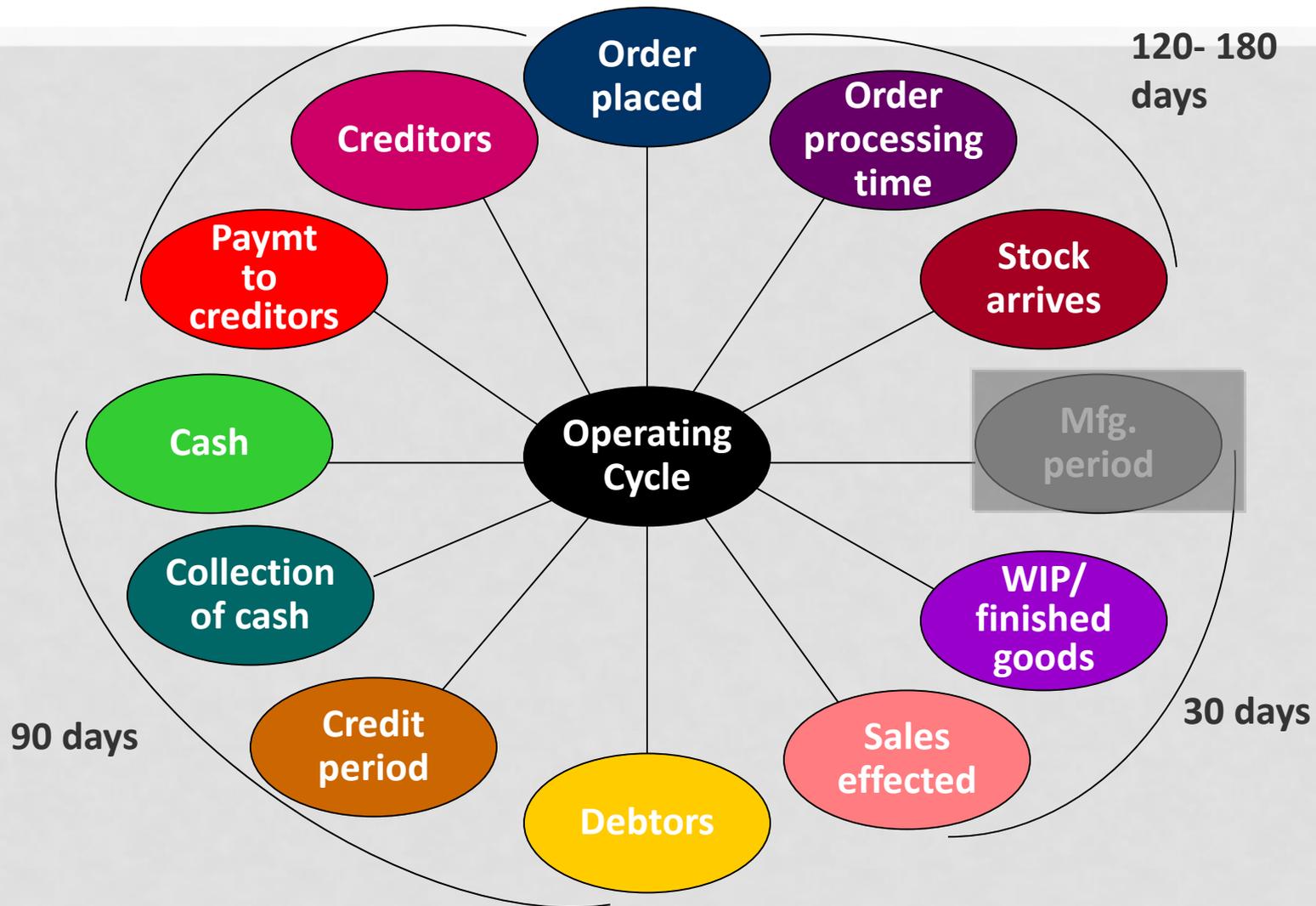
WORKING CAPITAL

- “Rolling” money which forms a part of the money cycle. It is the most dynamic component of the investment made in a firm
- The firm needs to invest into raw material, consumables to convert it into finished goods which gets converted into receivables and then into cash = Current assets (Gross working capital)
- The above are financed by way of current liabilities (creditors, bank borrowings)
- $\text{Current assets} - \text{Current liabilities} = \text{Working capital gap}$

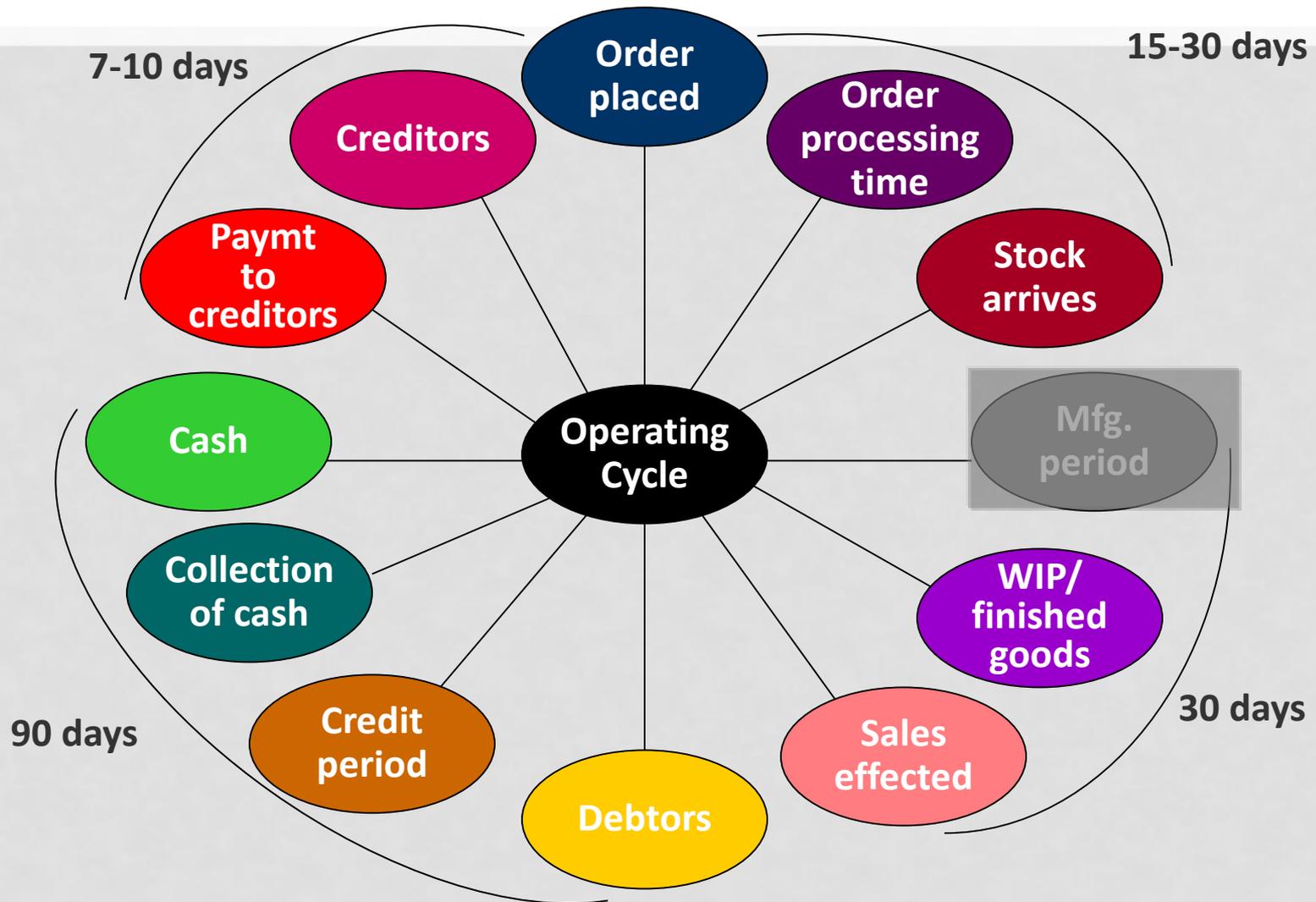
THE OPERATING CYCLE



Operating Cycle: USAID Products



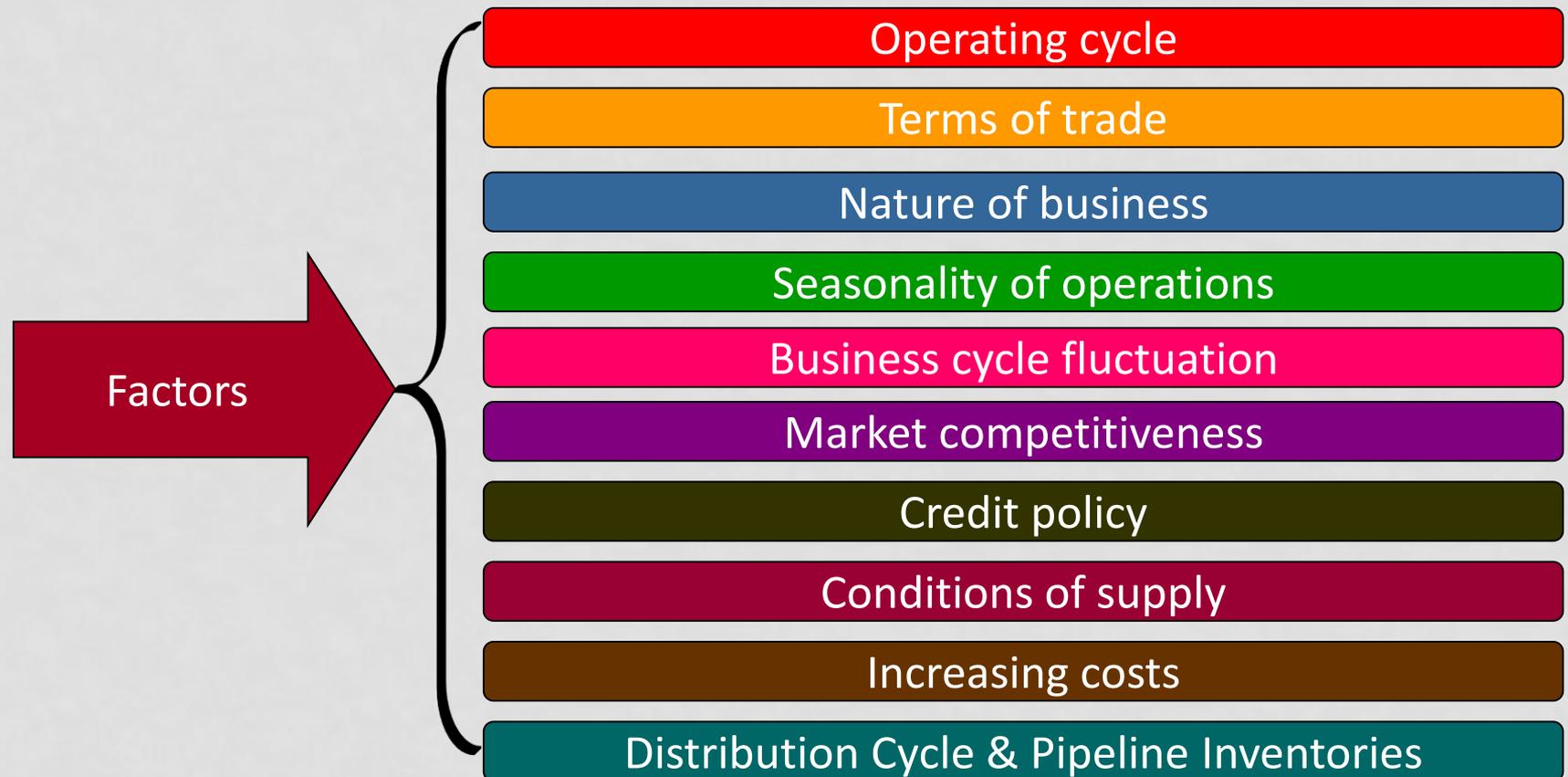
Operating & Cash Conversion Cycle : Others



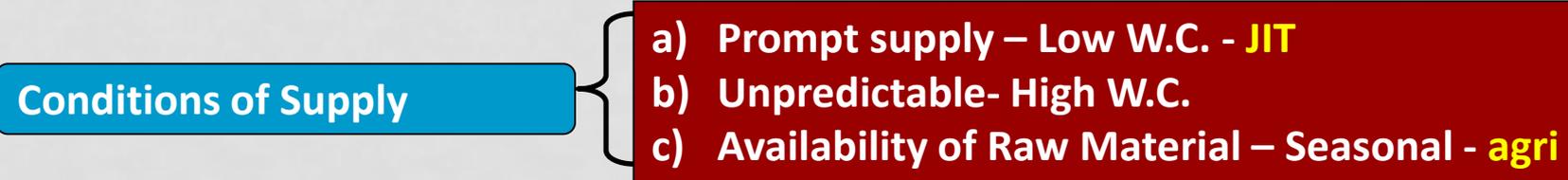
Cash Cycle :

1. Cash cycle = Operating cycle – Accounts payable
 $135 - 7 = 128$ days.
2. Negative Cash cycle = a) Low operating cycle followed by high Accounts payable.
 $105 - 120 = -15$ days

Factors influencing WC requirements:



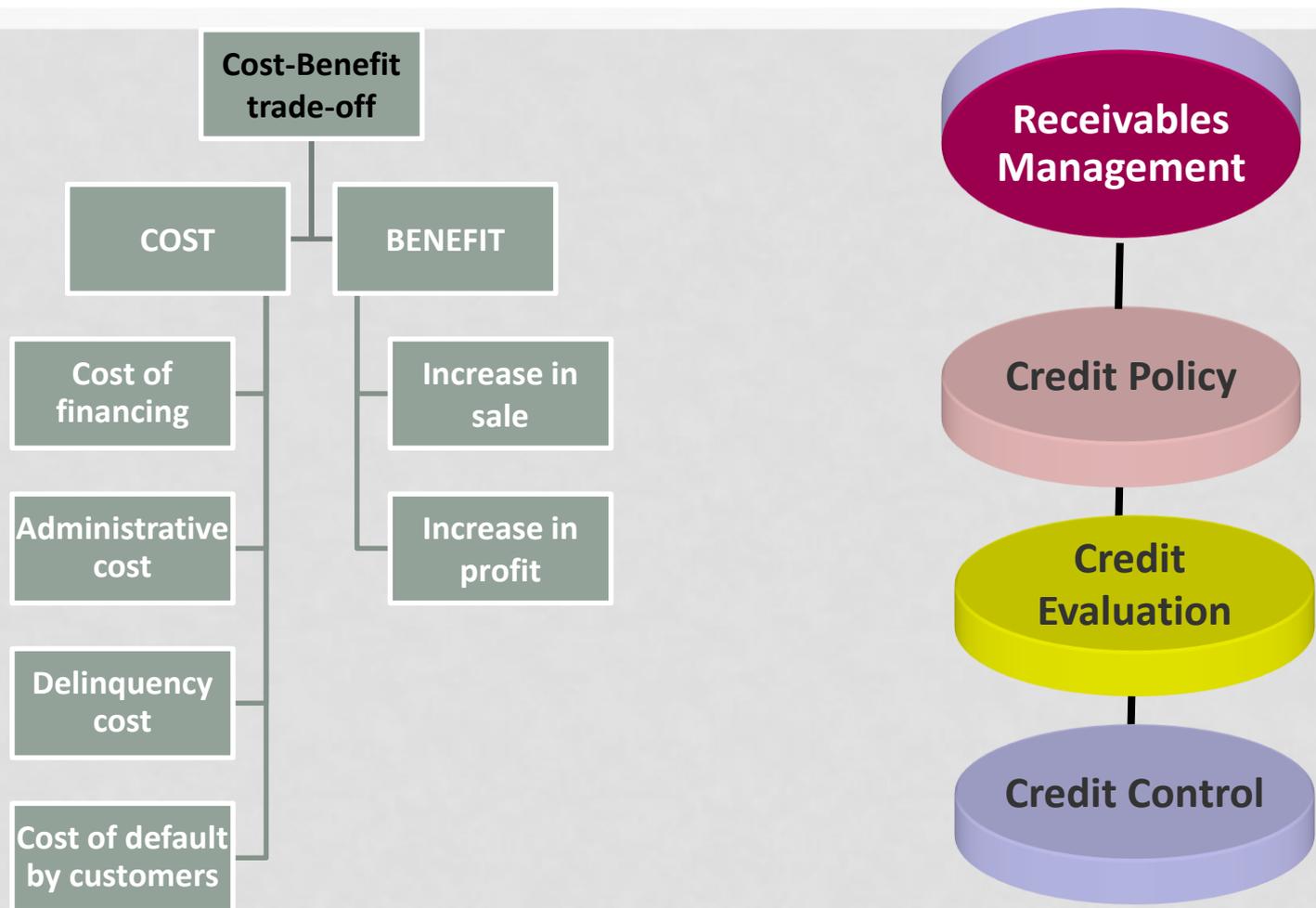
Factors influencing WC requirements:



NATURE OF BUSINESS

Service industry :	Low operating cycle – less of WC – however it is fixed assets intensive.
Transport corporation :	Low WC.
Retail/Trading firm :	High WC.
Manufacturing :	High WC – high fixed assets, selling on credit terms. Capacity utilisation is a cash flow driver
Financial Services :	Low WC – liquidity high.

Receivables have Cost as well as Benefit



CASH DISCOUNT

- Annual Sales = 1000 cr
- 60 days credit period. Analysis only 50% in 60 days, bal 50% in 120 days, avg period = ?
- Assume - If 2/10 net 60 is offered, the current better behaved creditors will adhere to this. The 120 days wont change payment pattern
- Cost of borrowing is 15%

CASH DISCOUNT

- Avg accounts receivable is $1000 \times 90 / 365 = 246.58$ cr
- With the discount, 50% will reduce to 10 days = avg days receivables to 65 days = 178.08 cr
- Savings is $68.5 \text{ cr} @ 10\% = 6.8$ crores
- Cost of disc = $0.5 \times 1000 \times 0.02 = 10$ cr

CASE

- Sales 1000 cr, Cost of sales 80%, bad debt 1%, oppy cost of investment is 20%
- With Cash disc 2/10 net 30, sales expected to rise by 25% and bad debt down to 0.5% of total sales
- Currently, 50 % pay in 30, bal 60 days avg 45 days
- With cash discount, 70% will accept discount, bal 30% will pay in 60 days
- Is the proposal acceptable

CASE

- Existing receivables 45 days= 123.29 crores
- Avg collection period down to 25 days
- New receivables = 85.62 crores on sales of 1250 cr
- Funds released= 37.67 crores
- Profit on additional sales 20% on 250 cr= 50 cr
- Opportunity savings in a/cs receivable= 0.2×37.67 cr= 7.53 cr
- Savings on bad debt losses= $0.01 \times 1000 - .005 \times 1250 = 3.75$
- Less oppy cost of disc= $0.02 \times 1250 \times 0.7 = 17.5$

Inventory Management

- An integral part of a firm's operations, requires considerable investment.
- Constitutes 25-30% of the total current assets of any Company.
- Maintaining the level of inventory is like maintaining the level of water in a bath tub with an open drain.
- Levels of inventory may remain the same but the items can keep changing.
- Purpose of carrying inventory is to uncouple functions of production, purchase & selling to ensure that delays do not affect the production & sales activities.
- Production shut downs result in increased costs & possible delay in deliveries, with a chance of losing the customers.
- **Management and control of inventory is an important dimension**

INVENTORY MANAGEMENT

- Inventory management is primarily about specifying the size and placement of stocked goods.
- Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods

REASONS FOR KEEPING INVENTORY

- The three main reasons for keeping inventory by companies are as follows:
 - ✓ Time factor
 - ✓ Uncertainty
 - ✓ Economies of Scale

Types of Inventories

- Finished goods, WIP, raw materials.
- Levels of finished goods is maintained to uncouple the production & sales function.
- Purpose of maintaining WIP is to uncouple the various operations in the production process so that machine failures & stoppages in one operation will affect the other adversely.
- It uncouples the production function from the purchase function.

Techniques of Inventory Management

- Need to evaluate –
 - a) Whether all the items of inventory are equally important?
 - b) What should be the size of each order?
 - c) At what levels should replenishments take place?

Techniques of Inventory Management

ABC Analysis.

EOQ Model

Reorder level

Safety stock

Qty. discounts & order qty.

Just-in Time (JIT) Inventory

Trade-off in Inventory is fairly clear :

Too high
inventory

Substantially high carrying cost which will drag down the value of the firm

Too small
inventory

Loss of sale opportunity and higher ordering cost

Maintaining optimum inventory is the key

Costs of Inventory

a) Carrying Costs :

Cost of Storage	Rent of space occupied, cost of people employed, infrastructure. E.g.- air-conditioning, cost of insurance, pilferage, warehousing, handling etc.
Cost of Financing	Funds invested, opportunity cost, implicit cost of interest on credit purchases, explicit cost of financing in the form of interest.

b) Cost of Ordering – logistics, freight, min order size

c) Cost of Stock-outs (a hidden cost) :

- Stock out of finished goods leads to loss of sale and the customer.
- Lower profits.
- Loss of goodwill and reputation.
- Stock-out of raw materials – WIP can stop production process.
- Result in unabsorbed cost of labor and overheads.

ABC ANALYSIS MODEL

- The **ABC analysis** is a business term used to define an inventory categorization technique. It is also known as *Selective Inventory Control*. Policies based on ABC analysis:
 - A items : very tight control and accurate records
 - B items : less tightly controlled and good records
 - C items : simplest controls possible and minimal records

ABC ANALYSIS MODEL

- The ABC analysis suggests that inventories of an organization are not of equal value. Thus, the inventory is grouped into three categories (**A**, **B**, and **C**) in order of their estimated importance.
 - '**A**' items are very important for an organization. Because of the high value of these 'A' items, frequent value analysis is required.
 - '**B**' items are important, but of course less important, than 'A' items and more important than 'C' items. Therefore 'B' items are intergroup items.
 - '**C**' items are marginally important.

ABC ANALYSIS MODEL

- There are no fixed threshold for each class - 'A' items typically account for a large proportion of the overall value but a small percentage of number of items. (e.g. 20% of the items accounts for 70% of the annual consumption value of the items)

EOQ MODEL

- EOQ is the quantity to order, so that ordering cost + carrying cost finds its minimum
- Assumptions:
 - Relatively uniform & known demand rate
 - Fixed item cost
 - Fixed ordering and holding cost
 - Constant lead time

EOQ MODEL

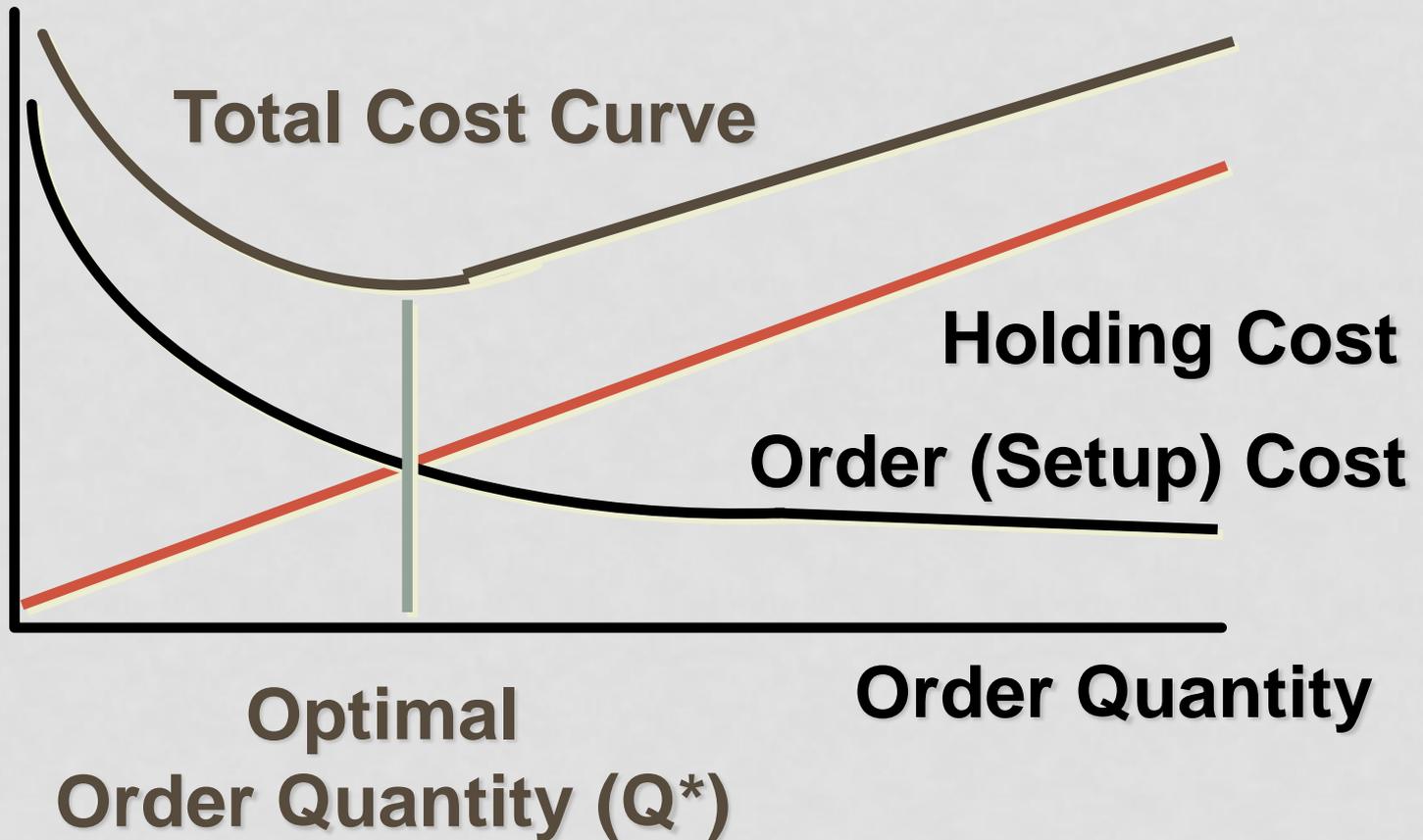
- Re-order Level - The **reorder point** ("ROP") is the level of inventory when an order should be made with suppliers to bring the inventory up by the Economic order quantity ("EOQ").
- The two factors that determine the appropriate order point are the **delivery time stock** which is the Inventory needed during the lead time (i.e., the difference between the order date and the receipt of the inventory ordered) and the **safety stock** which is the minimum level of inventory that is held as a protection against shortages due to fluctuations in demand.
- Reorder Point = Normal consumption during lead-time + Safety Stock .

EOQ MODEL

- Transaction cost 'C' per order
- Total demand for stock 'D' per period is known
- Quantity per order 'Q'
- Holding Cost per annum 'H'
- EOQ approach to minimize $TC = HXQ/2 = CXD/Q$

EOQ MODEL

Annual Cost



EOQ

Qty per order	No of order per year	Ordering cost	Avg Inventory (units)	Holding cost (Rs)	Total Cost (Rs)
7200	1	1200	3600	10800	12000
3600	2	2400	1800	5400	7800
2400	3	3600	1200	3600	7200
1800	4	4800	900	2700	7500
1440	5	6000	720	2160	8160
1200	6	7200	600	1800	9000
900	8	9600	450	1350	10950
720	10	12000	360	1080	13080

- $C=1200$, $H=3$, Annual demand $D=7200$ units
- $Q=\text{under root } (2CD/H)$

QUICK QUIZ

- Activity-based costing
- Budgeted cost
- Direct and Indirect Cost
- Fixed, Variable and Semi variable Cost
- Contribution margin
- B E P
- B E Q
- B E Q (target profit)
- B E Sales (Rs.)
- Responsibility centres
- Cost of capital
- Working Capital
- Inventory
- Techniques of Inventory management
- Costs of Inventory
- ABC Analysis
- Reorder Point
- EOQ

GLOSSARY: COSTS- TERMS AND DEFINITIONS

- **Activity** An activity is a specific task, process or function that converts **inputs** (resources) into **outputs** (goods or services).
- **Activity-based costing** Activity-based costing (ABC) is a costing method used to assign costs associated with inputs to the production of goods and/or services (outputs). **Outputs** are measured in **unit costs**, which is the average cost of producing one unit of a good or service and may be goods, services, activities etc. ABC can be used with either the **top-down** or **bottom-up approach** to estimating unit costs.
- **Actual cost** An actual cost is a cost that has been *incurred* (i.e. historical costs).
- **Bottom-up approach** The bottom-up approach builds standard unit costs based on standard level of inputs and standard input prices, rather than using actual levels of inputs or prices. This approach is a forward-looking costing method as the development of standard unit costs consider current/best practice, activities, cost drivers and service level specifications.

COSTS- TERMS AND DEFINITIONS

- **Budgeted cost** A budgeted cost is a cost that is planned and is usually estimated from a predefined level of activity or output.
- **Cost** A cost is the rupee value of a resource that is used to achieve a specific objective. Costs are measured in the conventional accounting manner, that is as monetary units that must be paid for a good or service.
- **Cost driver** A cost driver is a factor that has an effect on costs (either immediately or over a given time span), e.g. the level of activity or the volume of goods produced or services rendered.
- **Costing** Costing is the process used for determining the cost of performing a given activity, e.g. manufacturing a good, rendering a service or performing a function. Costing involves the detailed analysis of all costs associated with service delivery, including mapping service processes and activities and determining their costs.

COSTS- TERMS AND DEFINITIONS

- Direct cost A direct cost is a cost that is easily traceable to a particular cost object.
- Direct worker A direct worker spends the majority of their time working with the clients in a service.
- Economies of scale Economies of scale occur as unit costs decrease in response to increases in the level of activity or output of an organisation.
- Effective service hours Effective service hours are the working hours for direct-client activities excluding weekends, public holidays, all types of leave, training and non-client related activities
- Establishment cost An establishment cost is an up-front capital and/or operating cost that is incurred to set up the provision of a new good or service or expand the provision of an existing one. They may be classified as direct or indirect costs

COSTS- TERMS AND DEFINITIONS

- **Financial cost** Financial costs are costs that have a monetary (rupee) value.
- **Fixed cost** A fixed cost is a cost that does not change in response to changes in the level of activity or output in the short term.
- **Full cost attribution** Full cost attribution is the identification of all costs incurred by an agency on the cost object; this includes all direct costs and indirect costs. These costs are also referred to as fully distributed costs.
- **Indirect cost** An indirect cost is a cost that is not easily traceable to a particular cost object, generally because the cost is associated with more than one cost object.
- **Overhead cost** An overhead cost is a type of indirect cost associated with support services that contribute to the operation of goods or service provider. These costs can be significant and need to be allocated to cost objects.
- **Semi-fixed cost** A semi-fixed cost is a cost that has both fixed and variable components in that the cost is fixed up to a certain level of activity or output, but once that level is exceeded the cost becomes variable. In other words, the cost is variable in steps
- **Unit cost** A unit cost is the cost of providing one unit of a good or service. It is calculated by dividing the total cost of providing a good or service (inputs) by the level of activity or output. Unit costs include fixed, semi-fixed and variable costs. They may be calculated for a particular service delivered by either a single provider or all providers in the sector.

MODULE 2

PRICING

TOPICS FOR DISCUSSION

MODULE 2 : PRICING

Module 2.1: Determine Market Positioning

Module 2.2: Develop Marketing Strategy

Module 2.3: Evaluate Product Price Relationship

Module 2.4: Assess external / environmental factors

Module 2.5: Align with the Product Lifecycle

Module 2.6: Assess Internal Factors

Module 2.7: Determine pricing

Module 2.8: Re-assess & Alter Pricing

UNDERSTANDING OUR AUDIENCES IS ESSENTIAL FOR THE HEALTH OF ALL NONPROFITS

- The external environment is increasingly turbulent, unstable, changing
- Constituents and supporters want more control, and loyalty cannot be assumed
- Informal networking is less reliable as source for money, volunteers, publicity
- Public policies are changing
- Demands for accountability are rising
- While some nonprofits are paying attention to such changes, most are not

WHAT IS MARKETING?

- “Marketing is the function of a nonprofit whose goal is to plan, price, promote, and distribute the organization’s programs and products by keeping in constant touch with the organization’s various constituencies, uncovering their needs and expectations for the organization and themselves, and building a program of communication to not only express the organization’s purpose and goals, but also their mutually beneficial want-satisfying products.”
(Philip Kotler)

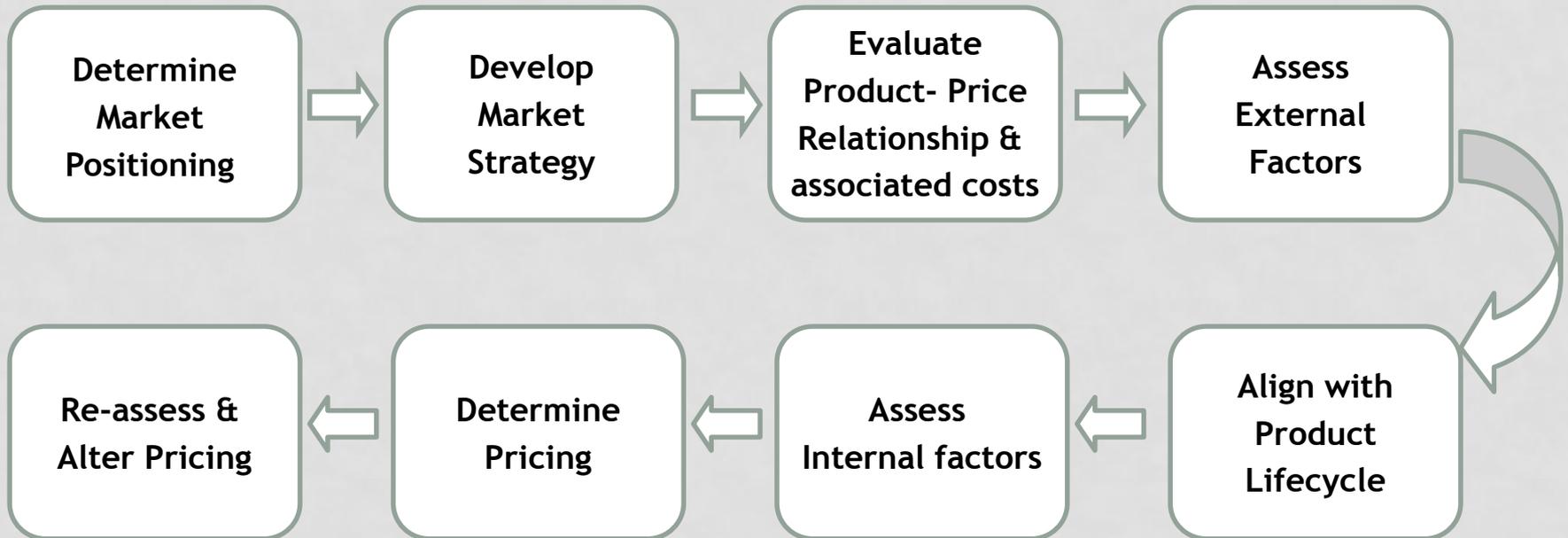
BENEFITS OF GOOD MARKETING

- Greater consumer satisfaction
- Increased consumer participation
- Better attraction of resources
- Stronger donor, staff and volunteer loyalty
- Greater efficiency and effectiveness of services
- Stronger organization

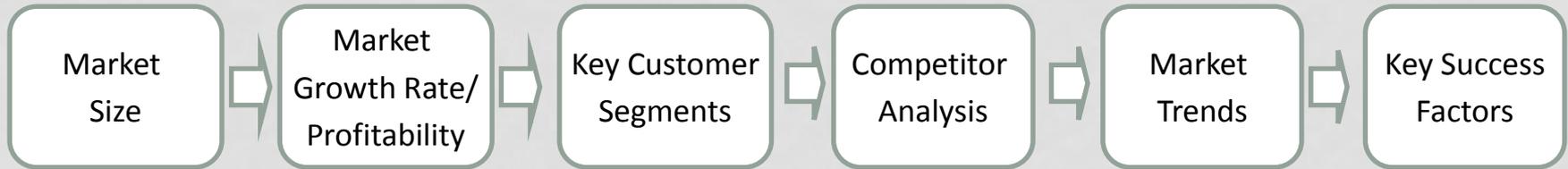
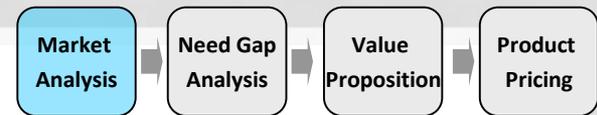
PRICING CHALLENGES FOR NOT FOR PROFITS

- A big challenge to the widespread use of pricing strategies among not-for-profits is the **low orientation to costs**. In developing their pricing strategies, several not-for-profits discover that their charges were at or below the actual costs of the services.
- Even if the prices are kept below cost for increasing outreach, it is important to know and determine the appropriate price which covers all costs incurred.
- Price determination in the not for profits needs to take into account the value being offered and the reference point their price is going to make for similar services

PRODUCT PRICING

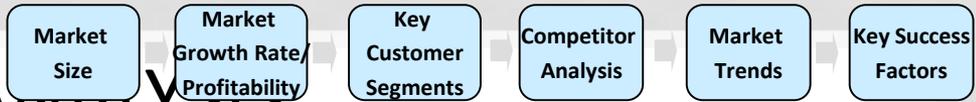


MARKET ANALYSIS



- Analyse Market Landscape
 - Market size-(current and potential)
 - Market growth rate
 - Market profitability
 - Industry cost structure
 - Distribution channels
- Identify Customer Segments
- Identify Key Product/ Services offerings
- Understand Key Players/Competitors and their positioning/market shares
- Identify Market trends
- Identify Key success factors

MARKET ANALYSIS



Market size

- Sales Volume/Value

Sources-External

- Government data
- Trade associations
- Financial data from major players
- Customer research

Sources-Internal

- Sales Team
- Technical- Customer Interface
- Management teams

Market Growth

- Study growth drivers such as demographics/ sales growth in primary products & our industry
- Extrapolate historical data into the future.
- Construct a product diffusion curve - analyse stages in which your product is adopted by different customer sets during the life cycle of our product

Market Profitability

- Active and potential customer base
- Industry benchmarks

Industry Cost Structure

- Benchmark against industry costs/ efficiencies

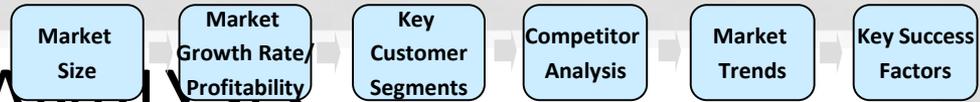
Distribution channels

- Direct/Dealers
- Others

Define and Quantify Segments

- Industry
- Company size
- Location – geographical cluster
- Benefit Segments- Product use (s) by the industry
- Buying behaviour
 - Frequency of purchase
 - Average order size
- Buyer/Seller relationships

MARKET ANALYSIS



- **Identify Competition**
- **Collate information ***
 - Overall sales- revenue/volumes by market & by main brand
 - Cost structure
 - Market shares (revenues and volumes)
 - Organisation structure & leadership profile
 - Distribution channels
 - Customer perception
- **Assess competitors strategies, strengths & weaknesses**
- **Assess competitors response to our actions / promos**

- **Macro Trends**
 - Economic
 - Political
 - Environment
 - Technology
 - Social
- **Customer Trends**
 - Changing Profile /Geographic
 - Changing Consumption -including substitution
 - Changing Distribution preferences
 - Trends in customer industry

- **Industry Trends**
 - Changing production processes & technology
 - Changing inputs & supplier power
 - Competitors, market share & new entrants

- **Establish business/project goals**
- **For each goal, identify areas of business/ project activities essential to achieve the goal**
 - Industry CSF's resulting from specific industry characteristics;
 - Strategy CSF's resulting from the chosen competitive strategy of the business
 - Environmental CSF's resulting from economic or technological changes; and
 - Temporal CSF's resulting from internal organizational needs and changes

MARKET ANALYSIS

• Sources for Competition Information Collation

• Recorded Data

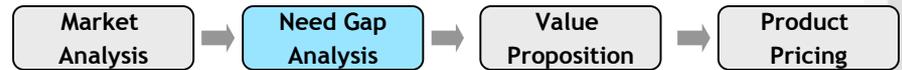
- Annual report & accounts
- Press releases
- Newspaper articles
- Analysts reports
- Regulatory reports
- Government reports shared distributors
- Presentations / speeches

• Observable Data

- Pricing / price lists
- Advertising campaigns
- Promotions
- Tenders
- Patent applications

• Opportunistic Data

- Meetings with suppliers
- Trade shows
- Sales force meetings
- Seminars / conferences
- Recruiting ex-employees
- Discussion with
- Social contacts with competitors



NEED GAP ANALYSIS

NEED GAP ANALYSIS

• Opportunity assessment

- Identify unmet customer needs, pain points- observe through usage behaviour
- Identify currently un-served and under-served customers (segments, locations)
- Assess current maturity level in market - learn from need evolution map of evolved and older markets
- Contextualize with technology and market trends

• Align with company strategy and operating strengths

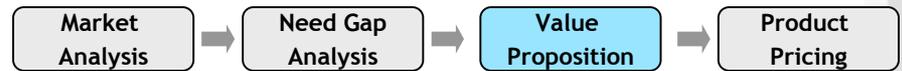
- Assess internal resources- human & capital- to harness the opportunity
- Assess organisational competency and capability
- Assess fitment with overall organisation strategy and objectives

• Identify target customer segments

- New customers- new regions within the country/ new countries going forward
- Sales growth from existing customers

• Identify product and service offerings

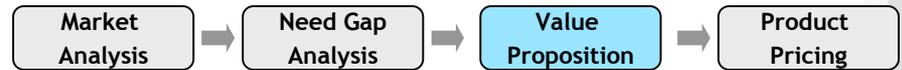
- New applications / New products



VALUE PROPOSITION

PRODUCTS CAN BE COPIED, VALUE PROPOSITION CANNOT

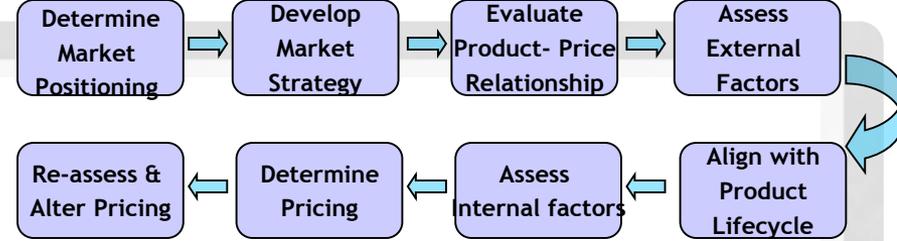
- **VALUE PROPOSITION** is a succinct statement that describes why a customer should buy your product- it consists of the sum total of benefits you promises a customer will receive in return for the associated payment
- Create value proposition
 - Know your targeted customers and both their obvious and less apparent needs - understand what is seen as ‘value’
 - Know the competitors propositions and clearly differentiate on parameters of perceived value
 - Determine ‘BSI Company-Specific Value’
 - Clearly articulate company-specific value to target customer segments: revenue-enhancing, cost-reducing, and benefits associated with your solution



VALUE PROPOSITION

PRODUCTS CAN BE COPIED, VALUE PROPOSITION CANNOT

- Create and regularly update compelling content for target audience. Communicate proposition through
 - Sales collateral - White papers and brochures
 - Website content & development
 - Executive presentations and videos
 - Bylined articles
- Ensure delivery of proposition promise

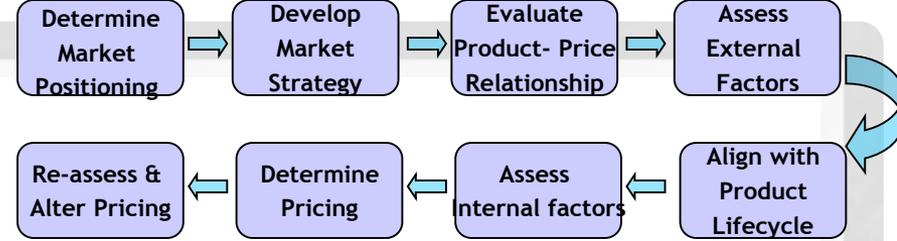


PRODUCT PRICING

PRODUCT PRICING

- 1. Determine Market Positioning** - perform marketing analysis, segmentation, targeting, and positioning
- 2. Develop Marketing Strategy** - define the product, distribution, and promotional tactics
- 3. Evaluate Product Price Relationship**
 - Understand the price sensitivity / demand curve - how quantity demanded varies with price
- 4. Assess external / environmental factors**
 - Type of market - pure competition, monopolistic, oligopolistic
 - Consumer perceptions of price and value
 - Competitor's costs, prices and offers
 - Economic conditions
 - Government and legal considerations

PRODUCT PRICING



PRODUCT PRICING

5. Align with the Product Lifecycle

- Prices to be aligned with the four major life cycle phases : launch, growth, mature and declining.

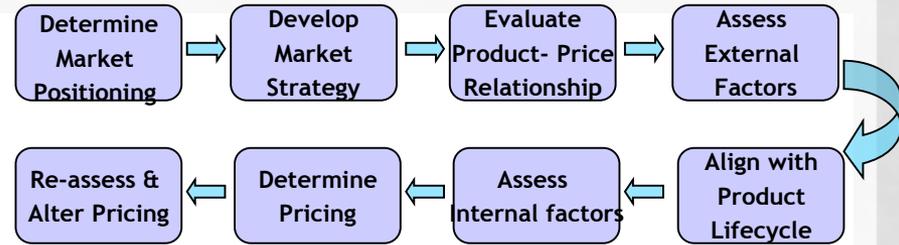
Launch Price - Generally high, assuming a skim pricing strategy for a high profit margin as the early adopters buy the product and the firm seeks to recoup development costs quickly. In some cases a penetration pricing strategy is used and introductory prices are set low to gain market share rapidly

Growth Price - Maintained at a high level if demand is high, or reduced to capture additional customers

Maturity Price - Possible price reductions in response to competition while avoiding a price war

Decline Price - Prices may be lowered to liquidate inventory of discontinued products. Prices may be maintained for continued products serving a niche market

PRODUCT PRICING

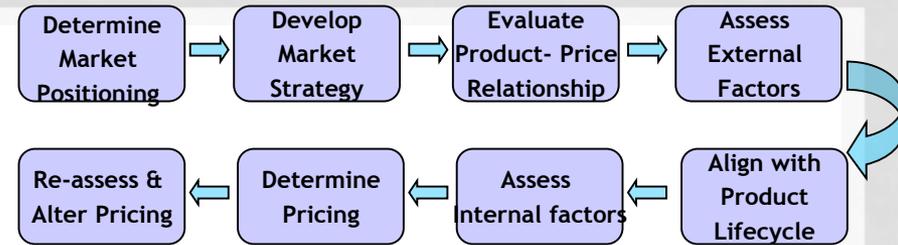


PRODUCT PRICING

6. Assess Internal Factors

- Determine Costs
 - Include fixed and variable costs associated with the product
- Set Price Objective- Chose one of the following aligned to business plan
 - **Current profit maximization** - to maximize current profit,
 - **Current revenue maximization** - to maximize current revenue with no regard to profit margins.
 - **Maximize quantity** - to maximize the number of units sold
 - **Maximize profit margin** - attempts to maximize the unit profit margin
 - **Achieve set profit goals**
 - **Quality leadership** - use price to signal high quality in an attempt to position the product as the quality leader

PRODUCT PRICING



PRODUCT PRICING

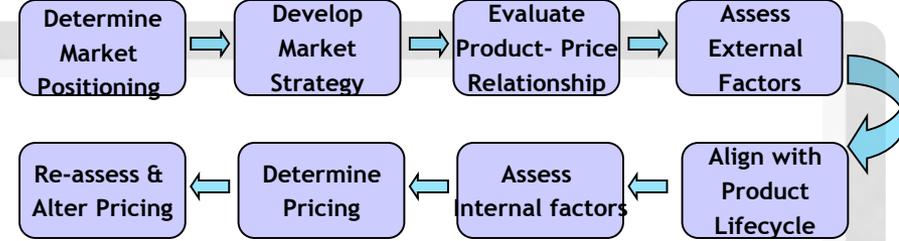
7. Determine pricing

Using information collected in steps 1-6, select a pricing method, develop the pricing structure, and define discounts

- **Cost-plus pricing** - set the price at the production cost plus a certain profit margin.
- **Target return pricing** - set the price to achieve a target return-on-investment
- **Value-based pricing** - base the price on the effective value to the customer relative to alternative products
- **Psychological pricing** - base the price on factors such as signals of product quality, popular price points, and what the consumer perceives to be fair
- **Versioning**- set differential pricing offering varying but closely-related versions of a product or service at different price points.
- **Bundled services / Memberships**

Organizations that provide a range of services or programs might provide several different packages or 'bundles' to develop a market for under-utilized programs. Membership programs, for the right organization, can offer a reduced per-visit or per-transaction cost for the client while creating a long-term relationship for the nonprofit.

PRODUCT PRICING



PRODUCT PRICING

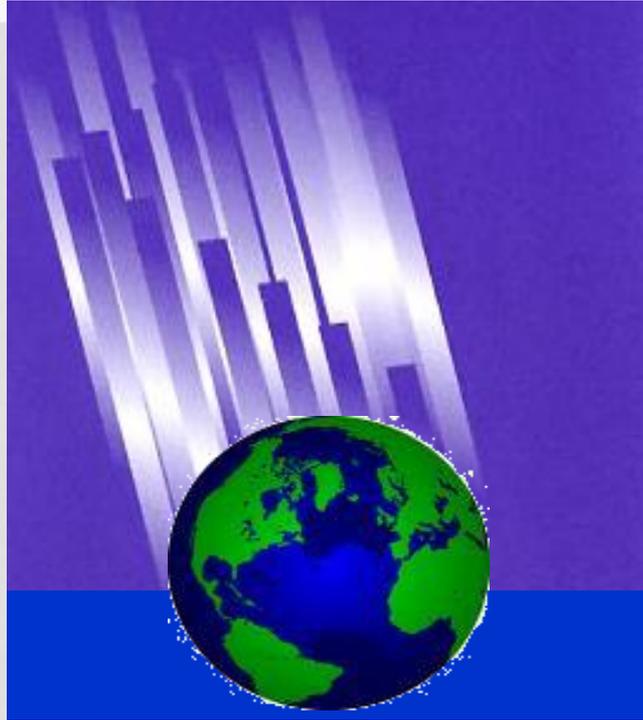
7. Re-assess & Alter Pricing

- Reassess when
 - Changes in economic conditions prices
 - Changes in supply and demand
- Increase / Reduce price
- Offer Discounts and Coupons

Change in competitor's

Changes in production costs

Success



The Kairos: That moment in which vision, bold action, and opportunity converge to realize extraordinary accomplishment.”

WHY BUDGETING

Compels managers to plan

Ensure that they are adequate resources to implement the key projects and initiatives which deliver on strategic initiatives

Promotes coordination and communication

Promotes coordination and communication

Helps managers evaluate performance

Motivates employees to achieve company goals

VARIANCE ANALYSIS

RESPONSIBILITY ACCOUNTING SYSTEM

An accounting system that provides information . . .

Relating to the responsibilities of individual managers.

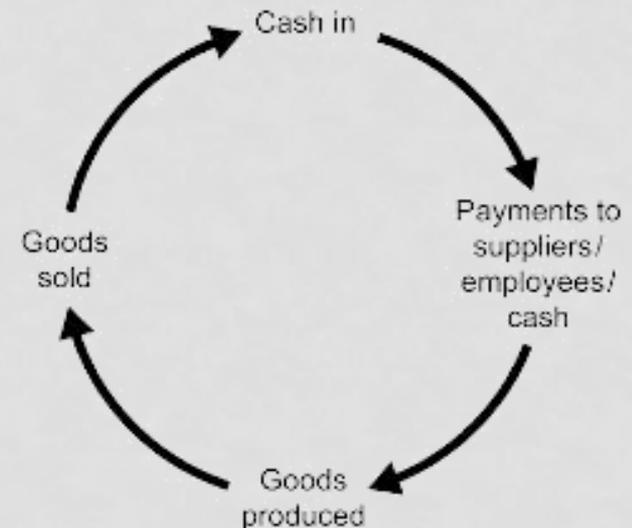
To evaluate managers on controllable items.

RATE OPTIMIZATION

- Costs must be correctly assessed when quoting for a contract
- The implications of Octroi, CST, other local taxes must be factored in when arriving at a price
- Hence it is important to understand upfront where the good is being sold, where the product is manufactured, where it is stored and how the movement will take place as this will lead to different taxes. Besides cost, there are cash flow implication
- The impact is both for the flow of sales and flow of raw materials (purchase)
- The implementation & implication of logistics must clearly be thought through

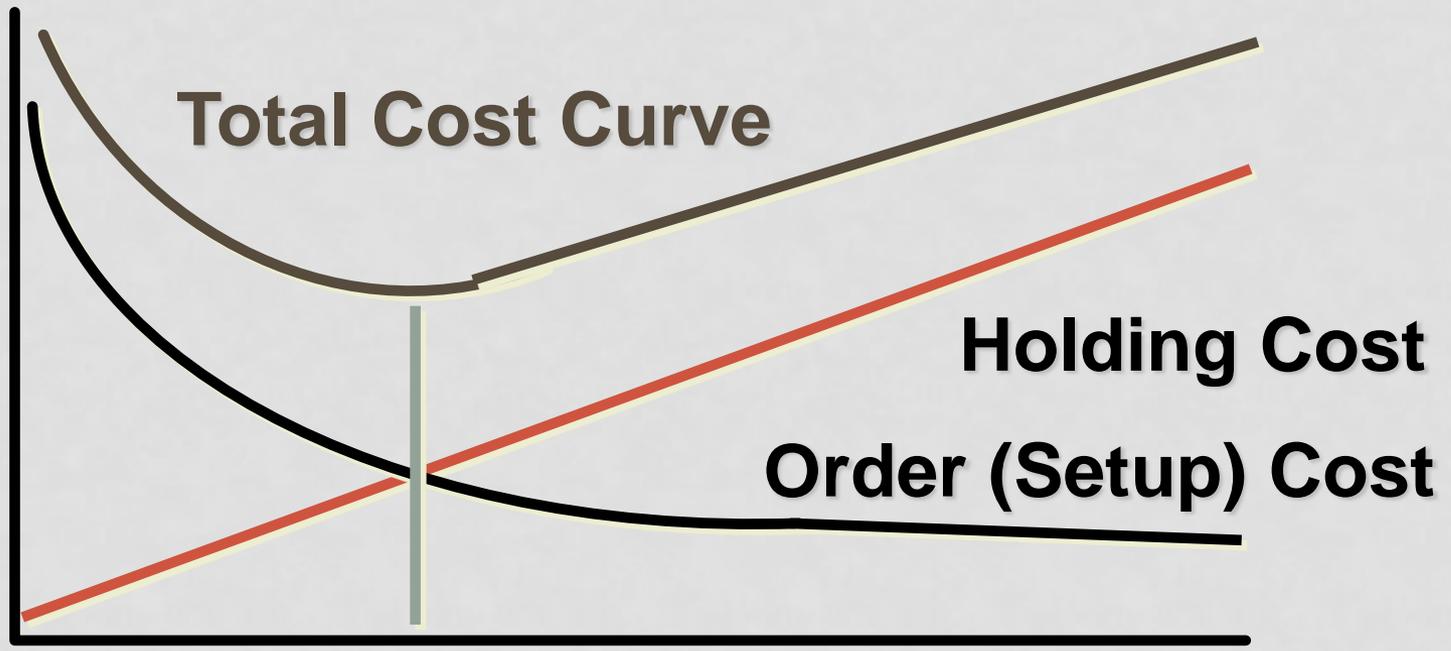
RESPONSIBILITY ACCOUNTING SYSTEM

- One of the most important things in running an organisation is to ensure that there is adequate cash flow to meet all of the short-term obligations.
- Working capital is the short-term capital that works for the organisation. This includes stock, work in progress, payments to suppliers and receipts from customers. By working your cycle more efficiently, cash is more readily available to use in other parts of the organisation.
- Working capital management involves the relationship between a firm's short-term assets and its short-term liabilities. The goal of working capital management is to ensure that a firm is able to continue its operations and that it has sufficient ability to satisfy both maturing short-term debt and upcoming operational expenses. The management of working capital involves managing inventories, accounts receivable and payable, and cash.



EOQ MODEL

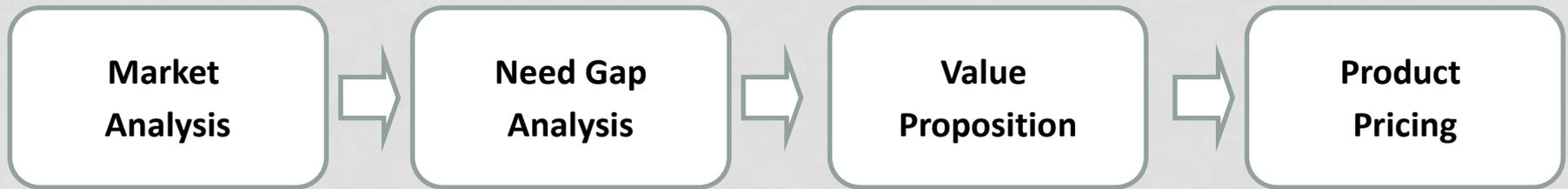
Annual Cost



**Optimal
Order Quantity (Q^*)**

Order Quantity

HIGH LEVEL MARKETING PROCESS



Frequency

- Annually

Frequency

- Annual

Frequency

- Annual

Frequency

- Dynamic- min Quarterly

- Market Intelligence- Ongoing

COMPANY IS A SUBSET OF THE INDUSTRY

Economy



Industry



Firm

- Understand economic indicators: GDP growth, interest rates movements.
- Establish co-relation

- Co, being part of industry, will face industry trends such as cycles, maturity, substitutes
- Product is derived demand as is an input raw material for most industries
- To follow trends in the end user industries

- Firm must be above avg player in the industry
- Must distinguish itself on cost/ market leadership, quality, service, supply chain, reach