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GHAR GHAR MAA SWASTHYA

Workshop Report on Analysis and Interpretation of Financial Statements - Nepal CRS Company

FHI 360

February 23-26, 2015

Submitted by: Shashi Satyal
COR: Mr. Pangday Yonzone

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I. Introduction

United States Agency for International Development (USAID/Nepal) work in social marketing began in 1978 with the establishment of Nepal CRS Company (CRS). CRS has now established itself as a pioneer in social marketing of health products and services in Nepal. Its product portfolio includes condoms, oral and injectable contraceptives like DepoProvera, and oral rehydration salts (ORS) and other MCH products. Nepal's poor transport infrastructure in hilly and mountainous landscape makes marketing and distribution of public health products very challenging and expensive. Despite the challenges, CRS has been very successful in marketing its products available in all 75 districts of Nepal, including the hardto-reach hills and mountain areas of the country.

With its successes, CRS is now relying more on its own resources and slowly decreasing its dependency on donor funding to support its operations and activities. USAID is currently supporting CRS through its Ghar Ghar Maa Swasthya (GGMS) project (2010-2015). GGMS consists of two components the first component, USAID directly funds CRS for social marketing and social franchising activities, focusing on sustainability. Under the second component, Family Health International (FHI 360) assists CRS by providing technical assistance in various areas of organizational development.

FHI360/GGMS recognizes organizational capacity of CRS to be the most important factor responsible for leading it towards sustainability. In May 2011 with technical assistance from FHI360/GGMS, CRS conducted a self-assessment of its institutional capacity in terms of leadership, management and other functional skills. A key area identified that needed strengthening was analysis and interpretation of the Financial Statements, Budgeting and Overheads for effective use in day-to-day operations.

II. Description of the training event

a) Date and location of the event

February 23 – 26, 2015, Hotel Tibet, Lazmipat, Kathmandu, Nepal.

b) Objective of the training

The objective of the course is to acquaint the CRS's finance staff on analytical framework and practical tools to analyze and exploit information about profitability and risk in corporate financial statement, budgeting process, overheads, introduce tools and techniques to reduce costs.

c) Program of the training

Daily training schedule is given in Annex A.

d) Training modalities and materials

The course was entitled "Analysis and Interpretation of Financial Statements, Budgeting and Overhead".

The course was undertaken in two parts:

- **A lecture module**, delivered using a PowerPoint slide deck. These sessions were interactive with extensive discussions on questions from the participants.

- **A series of case exercises** that gave opportunity to develop capacity to apply the information presented in the lecture module. The exercises/ examples on budgeting and financial statements were based on CRS's own financial statements whereas exercises on Ratio Analysis were based on financial statements of a profit making company.

Considering the level of interaction and the number of questions raised by the participants this training program was completed during 4 days.

e) Opening and closing sessions

Training program was formally inaugurated and closed by Mr Hare Ram Bhattarai, Chief of Party, FHI360/GGMS.

f) Participants and Trainers

This training course was participated by a total of 10 Nepal CRS's finance staff from the Central Office in Kathmandu and Area Offices outside of the valley. A list of participants is attached Annex B.

Trainers were provided by T R Upadhya & Co, Chartered Accountants. The list of trainers is given in Annex C.

g) Equipment, training materials and other facilities

The venue and other logistics including projector, camera etc., was arranged by FHI360/GGMS at the Hotel Tibet, Lazmipat, Kathmandu. All the participants were provided with a bag, notebook, pen and the training materials which were distributed by email to the participants.

III. Participants evaluation

A participant evaluation and feedback form was provided for completion by participants at the conclusion of the course (Annex D). All the 10 staff participated in evaluation of the training course. The results of their evaluation are presented below:

a.) Overall outcome of evaluation

S.No.	**Description**	**Very Poor (1)**	**Poor (2)**	**Average (3)**	**Good (4)**	**Excellent (5)**
1	How do you rate the training overall?	0	0	0	6 (60%)	4 (40%)

b.) Main comments of participants with answers received to the following questions.

i) How do you hope to change your practice as a result of this training?

Answers:

(a) will use the learning of this training in days ahead (2)
(b) try to apply at workplace (4)
(c) very confident to produce accurate and efficient financial information to donor,management (1)

ii) What additional trainings would you like to have in the future?

Answers:

(a) Similar trainings should be organized regularly (5)
(b) In the topics of "Planning and Budgeting"(1)

(c) *Need some job relating training frequently (1) (d) More training on finance related issues (1)*

iii) Please share other comments or expand on previous responses:

Big Thanks to organizers and trainers who provided us this very useful training.

IV. Recommendations

It is understood that this training was first of its kind for the finance staff of CRS. The participants were overwhelmed with the content of the training and the modalities used. On the basis of the feedback received from the participants it can be concluded that their expectation were met from the training course.

These trainings are always useful in building capacity of the finance staff of any entity and CRS is no exception. It is thus recommended that training on similar topics or other area that may be relevant to the finance staff be included in the annual training calendar and imparted continuously for capacity enhancement of CRS staff.

Annex A: Training Schedule (Day wise)

Training Course on
Analysis and Interpretation of Financial
Statements, Budgeting and Overhead

February23 -26, 2015
(Falgun11-14, 2071)

Part I: Interpreting and Analyzing Financial Statements (Day 1)

Time	Particulars
8:30	Breakfast
9:00	Course Introduction
9:30	The Income Statement
11:00	Tea Break
11:10	The Income Statement (continued)
13:00	Lunch
13:45	Analyzing the Income Statement
15:30	Tea Break
15:40	The Balance Sheet
16:45	Summary
17:00	Close for the Day 1

Part I: Interpreting and Analyzing Financial Statements (Day 2)

Time	Particulars
8:30	Breakfast
9:00	Analyzing the Balance Sheet
10:30	The Statement of Cash Flow
11:00	Tea Break
11:10	Analyzing the Statement of Cash Flow
13:00	Lunch
13:45	Analyzing the Statement of Cash Flow contd.
15:30	Tea Break
15:40	Interpretation of Financial Statement for donor prospective
16:45	Summary

17:00	Close for Day 2

Part II: Finance - Ratios Analysis & Interpretations (Day 3)

Time	Particulars
8:30	Breakfast
9:00	Introduction to Financial Ratios
9:45	Activity Ratios Efficiency Ratios – Introduction
10:15	Liquidity Ratios - Introduction
11:00	Tea break
11:10	Solvency Ratios - Introduction
12:00	Profitability Ratios - Introduction
13:00	Lunch Break
13:45	DuPont Analysis
14:30	Valuation Ratios - Introduction
15:30	Tea break
15:40	Break-even Analysis
16:45	Summary
17:00	Close of Day 3

Part III: Budget and Variance Analysis (Day 4)

Time	Particulars
8:30	Breakfast
9:00	What is budgeting?
9:30	Budget Methods
10:00	Types of Budget
11:00	Tea Break
11:10	Cash Budget
12:00	Budget Variance Analysis
13:00	Lunch
13:45	What is overhead, direct costs and indirect Costs
15:30	Tea Break
15:40	Allocation of costs

16:15	Effect of Different Allocation Bases
16:45	Concept and Meaning of Cost Reduction
17:00	Summary
17:15	Certificate Distribution followed by hi tea

Annex B: List of Participants

S.No.	Name	Designation	Nepal CRS Company
1.	Rajeev Sharma	**Sr. MIS Officer**	Head Office
2.	Sunil B Tiwari	**Admin/Finance Officer**	Narayanghat Area Office
3.	Sanjay Raj Sharma	**Admin/Finance Officer**	Nepalgunj Area Office
4.	Shanju Jha	**Admin/Finance Officer**	Biratnagar Area Office
5.	Laxmi Baniya	**Admin/Finance Officer**	Pokhara Area Office
6.	Ajaya Risal	**Sr. Finance Officer**	Head Office
7.	Purna Kumari Rana	**Sr. Finance Officer**	Head Office
8.	Suresh Bam	**Sr. Admin/Finance Officer**	Dhangadi Area Office
9.	Jyoti B Shrestha	**Finance Manager**	Head Office
10	Sitaram Subedi	**Sr. Finance Officer**	Head Office

Annex C: List of Resource Persons

S.No.	Name	Designation	Office
1.	Shashi Satyal	Training Coordinator	T R Upadhya & Co
2.	Sanjeev Mishra	Resource Person	T R Upadhya & Co
3.	Anjan Shah	Resource Person	T R Upadhya & Co

Annex D: Training Evaluation by Participants [template only] [actual *evaluation separately provided*]

Please indicate your impressions of the items listed below.

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
1. The training met my expectations.	❍	❍	❍	❍	❍
2. I will be able to apply the knowledge learned.	❍	❍	❍	❍	❍
3. The training objectives for each topic were identified and followed.	❍	❍	❍	❍	❍
4. The content was organized and easy to follow.	❍	❍	❍	❍	❍
5. The materials distributed were pertinent and useful.	❍	❍	❍	❍	❍
6. The trainer was knowledgeable.	❍	❍	❍	❍	❍
7. The quality of instruction was good.	❍	❍	❍	❍	❍
8. The trainer met the training objectives.	❍	❍	❍	❍	❍
9. Class participation and interaction were encouraged.	❍	❍	❍	❍	❍
10. Adequate time was provided for questions and discussion.	❍	❍	❍	❍	❍

11. How do you rate the training overall?

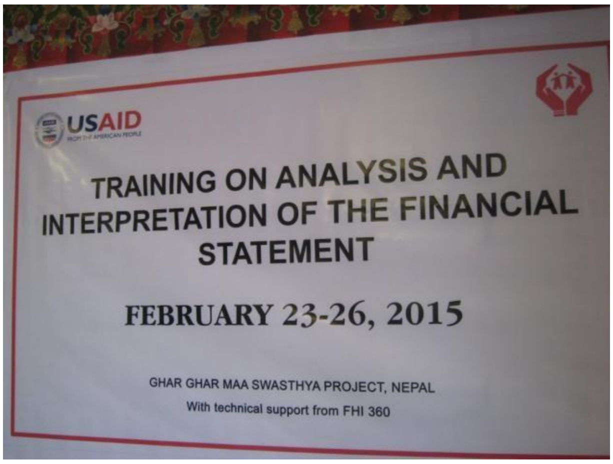
Excellent	Good	Average	Poor	Very poor
❍	❍	❍	❍	❍

12. How do you hope to change your practice as a result of this training?

13. What additional trainings would you like to have in the future?

14. Please share other comments or expand on previous responses here:

Annex E: Photographs



Annex F: Training Materials

Interpreting and Analyzing Financial Statements

Nepal CRS Company

Presented By:
T R Upadhya & Co.
Chartered Accountants

Training Schedule : DAY 1

Session	Time	Topics
I	9:00 to 9:30 AM 9.30 to 11.00 AM	Course Introduction Income Statement
	11:00 to 11:10 AM	Tea Break
II	11:10 to 13:00	Income Statement contd..
	13:00 to 13:45	Lunch
III	13:45 to 15:30	Analysing the Income Statement
	15:30 to 15:40	Tea Break
IV	15:40 to 16:45 16.45 to 17.00	The Balance Sheet Summary for the day

Course Introduction

What this course is about?

- To accurately interpret Balance Sheet, Income Statement and Cash Flow Statement
- To increase confidence to make correct and timely financial decisions that will increase the value of your organization.
- To identify the right questions to ask when assessing the organization's financial performance
- Easy assess of financial trends and ratios
- To ensure that board receives the right financial information from management

Interpreting and Analyzing Financial Statements

Includes:

- Identifying and assessing major changes in trends, amounts, and relationships.
- Investigation and evaluation of the reasons underlying those changes.
- Identifying information in the financial statements that is relevant to a particular decision.
- Provide review prospective for the finalizations of the financial Statements.

Analysis and Interpretations:??

- -How is the company doing? (improving or deteriorating)
- -What are its strengths?
- -What are its weaknesses?
- -How does it compare with industry competitors?

Analysis and Interpretations : Order

- Examine the auditor's report?
- Analysis the statement of accounting policies included in the notes to the financial statements.
- Study the financial statements as a whole, including notes and supporting schedules.
- Apply analytical Approaches
    - Horizontal analysis
    - Vertical analysis
    - Ratio analysis
- Review important supplemental information

Methods of Financial Statement Analysis

- Horizontal Analysis
- Vertical Analysis
- Common-Size Statements
- Trend Percentages
- Ratio Analysis

Horizontal Analysis

Using comparative financial statements to calculate dollar or percentage changes in a financial statement item from one period to the next

Vertical Analysis

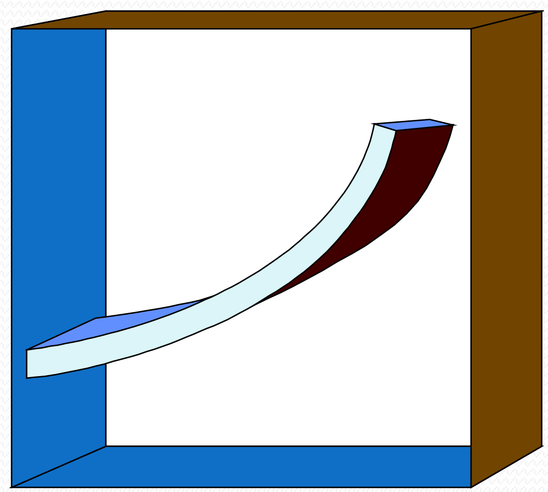
For a single financial statement, each item is expressed as a percentage of a significant total, e.g., all income statement items are expressed as a percentage of sales

Common-Size Statements

Financial statements that show only percentages and no absolute dollar amounts

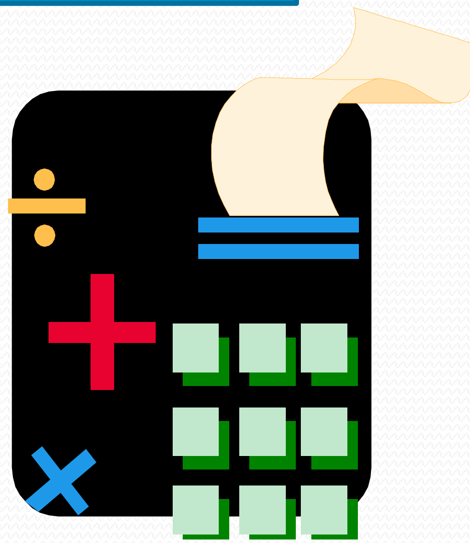
Trend Percentages

Show changes over time in given financial statement items (can help evaluate financial information of several years)



Ratio Analysis

Expression of logical relationships between items in a financial statement of a single period (e.g., percentage relationship between revenue and net income)



Horizontal Analysis Example

The management of Clover Company provides you with comparative balance sheets of the years ended December 31, 1999 and 1998. Management asks you to prepare a horizontal analysis on the information.

CLOVER CORPORATION

Comparative Balance Sheets

December 31, 1999 and 1998

	1999	1998
Assets		
Current assets:		
Cash	$ 12,000	$ 23,500
Accounts receivable, net	60,000	40,000
Inventory	80,000	100,000
Prepaid expenses	3,000	1,200
Total current assets	155,000	164,700
Property and equipment:		
Land	40,000	40,000
Buildings and equipment, net	120,000	85,000
Total property and equipment	160,000	125,000
Total assets	$ 315,000	$ 289,700

Horizontal Analysis Example

Calculating Change in Dollar Amounts

Dollar Change = Current Year Figure − Base Year Figure

Horizontal Analysis Example

Calculating Change in Dollar Amounts

Dollar Change = Current Year Figure − Base Year Figure

Since we are measuring the amount of the change between 1998 and 1999, the dollar amounts for 1998 become the “base” year figures.

Horizontal Analysis Example

Calculating Change as a Percentage

Percentage Change = Dollar Change / Base Year Figure × 100%

%

Horizontal Analysis Example

CLOVER CORPORATION
Comparative Balance Sheets
December 31, 1999 and 1998

			Increase (Decrease)	
	1999	1998	Amount	%
Assets				
Current assets:				
Cash	$ 12,000	$ 23,500	$ (11,500)	
Accounts receivable, net	60,000	40,000		
Inventory	80,000	100,000		
Prepaid expenses	3,000	1,200		
Total current assets				
Property and equipment:				
Land	40,000	40,000		
Buildings and equipment, net	120,000	85,000		
Total property and equipment	160,000	125,000		
Total assets	$ 315,000	$ 289,700		

$12,000 – $23,500 = $(11,500)

Horizontal Analysis Example

CLOVER CORPORATION
Comparative Balance Sheets
December 31, 1999 and 1998

			Increase (Decrease)	
	1999	1998	Amount	%
Assets				
Current assets:				
Cash	$ 12,000	$ 23,500	$ (11,500)	(48.9)
Accounts receivable, net	60,000	40,000		
Inventory	80,000	100,000		
Prepaid expenses	3,000	1,200		
Total current assets				
Property and equipment:				
Land	40,000	40,000		
Buildings and equipment, net	120,000	85,000		
Total property and equipment	160,000	125,000		
Total assets	$ 315,000	$ 289,700		

($11,500 ÷ $23,500) × 100% = 48.9%

Horizontal Analysis Example

CLOVER CORPORATION Comparative Balance Sheets December 31, 1999 and 1998				
			Increase (Decrease)	
	1999	1998	Amount	%
Assets				
Current assets:				
Cash	$ 12,000	$ 23,500	$ (11,500)	(48.9)
Accounts receivable, net	60,000	40,000	20,000	50.0
Inventory	80,000	100,000	(20,000)	(20.0)
Prepaid expenses	3,000	1,200	1,800	150.0
Total current assets	155,000	164,700	(9,700)	(5.9)
Property and equipment:				
Land	40,000	40,000	-	0.0
Buildings and equipment, net	120,000	85,000	35,000	41.2
Total property and equipment	160,000	125,000	35,000	28.0
Total assets	$ 315,000	$ 289,700	$ 25,300	8.7

Horizontal Analysis Example

Let’s apply the same procedures to the liability and stockholders’ equity sections of the balance sheet.

CLOVER CORPORATION
Comparative Balance Sheets
December 31, 1999 and 1998

			Increase (Decrease)	
	1999	1998	Amount	%
Liabilities and Stockholders' Equity				
Current liabilities:				
Accounts payable	$ 67,000	$ 44,000	$ 23,000	52.3
Notes payable	3,000	6,000	(3,000)	(50.0)
Total current liabilities	70,000	50,000	20,000	40.0
Long-term liabilities:				
Bonds payable, 8%	75,000	80,000	(5,000)	(6.3)
Total liabilities	145,000	130,000	15,000	11.5
Stockholders' equity:				
Preferred stock	20,000	20,000	-	0.0
Common stock	60,000	60,000	-	0.0
Additional paid-in capital	10,000	10,000	-	0.0
Total paid-in capital	90,000	90,000	-	0.0
Retained earnings	80,000	69,700	10,300	14.8
Total stockholders' equity	170,000	159,700	10,300	6.4
Total liabilities and stockholders' equity	$ 315,000	$ 289,700	$ 25,300	8.7

Horizontal Analysis Example

Now, let's apply the procedures to the income statement.

CLOVER CORPORATION
Comparative Income Statements
For the Years Ended December 31, 1999 and 1998

			Increase (Decrease)	
	1999	1998	Amount	%
Net sales	$ 520,000	$ 480,000	$ 40,000	8.3
Cost of goods sold	360,000	315,000	45,000	14.3
Gross margin	160,000	165,000	(5,000)	(3.0)
Operating expenses	128,600	126,000	2,600	2.1
Net operating income	31,400	39,000	(7,600)	(19.5)
Interest expense	6,400	7,000	(600)	(8.6)
Net income before taxes	25,000	32,000	(7,000)	(21.9)
Less income taxes (30%)	7,500	9,600	(2,100)	(21.9)
Net income	$ 17,500	$ 22,400	$ (4,900)	(21.9)

CLOVER CORPORATION
Comparative Income Statements
For the Years Ended December 31, 1999 and 1998

			Increase (Decrease)	
	1999	1998	Amount	%
Net sales	$ 520,000	$ 480,000	$ 40,000	8.3
Cost of goods sold	360,000	315,000	45,000	14.3
Gross margin	160,000	165,000	(5,000)	(3.0)
Operating expenses	128,600	126,000	2,600	2.1
Net operating income	31,400	39,000	(7,600)	(19.5)
Interest ex			(600)	(8.6)
Net income			(7,000)	(21.9)
Less incom			(2,100)	(21.9)
Net income	$ 17,500	$ 22,400	$ (4,900)	(21.9)

Sales increased by 8.3% while net income decreased by 21.9%.

There were increases in both cost of goods sold (14.3%) and operating expenses (2.1%). These increased costs more than offset the increase in sales, yielding an overall decrease in net income.

1998

			ease (Decrease)	
	1999	1998	Amount	%
Net sales	$ 520,000	$ 480,000	$ 40,000	8.3
Cost of goods sold	360,000	315,000	45,000	14.3
Gross margin	160,000	165,000	(5,000)	(3.0)
Operating expenses	128,600	126,000	2,600	2.1
Net operating income	31,400	39,000	(7,600)	(19.5)
Interest expense	6,400	7,000	(600)	(8.6)
Net income before taxes	25,000	32,000	(7,000)	(21.9)
Less income taxes (30%)	7,500	9,600	(2,100)	(21.9)
Net income	$ 17,500	$ 22,400	$ (4,900)	(21.9)

Vertical Analysis Example

The management of Sample Company asks you to prepare a vertical analysis for the comparative balance sheets of the company.

Vertical Analysis Example

Sample Company
Balance Sheet (Assets)
At December 31, 1999 and 1998

			% of Total Assets	
	1999	1998	1999	1998
Cash	$ 82,000	$ 30,000	17%	8%
Accts. Rec.	120,000	100,000	25%	26%
Inventory	87,000	82,000	18%	21%
Land	101,000	90,000	21%	23%
Equipment	110,000	100,000	23%	26%
Accum. Depr.	(17,000)	(15,000)	-4%	-4%
Total	$ 483,000	$ 387,000	100%	100%

Vertical Analysis Example

Sample Company
Balance Sheet (Assets)
At December 31, 1999 and 1998

			% of Total Assets	
	1999	1998	1999	1998
Cash	$ 82,000	$ 30,000	17%	8%
Accts. Rec.	120,000	100,000	25%	26%
Inve				%
Land				%
Equi				%
Accum. Depr.	(17,000)	(15,000)	-4%	-4%
Total	$ 483,000	$ 387,000	100%	100%

$82,000 ÷ $483,000 = 17% rounded
$30,000 ÷ $387,000 = 8% rounded

Vertical Analysis Example

Sample Company
Balance Sheet (Liabilities & Stockholders' Equity)
At December 31, 1999 and 1998

			% of Total Assets	
	1999	1998	1999	1998
Acts. Payable	$ 76,000	$ 60,000	16%	16%
Wages Payable	33,000	17,000	7%	4%
No	[illegible]	[illegible]	[illegible]	[illegible]
Co	[illegible]	[illegible]	[illegible]	[illegible]
Retained Earnings	154,000	100,000	32%	26%
Total	$ 483,000	$ 387,000	100%	100%

$76,000 ÷ $483,000 = 16% rounded

Auditor’s Report:

- auditor’s report reflects the auditor’s opinion **on the fairness and the presentation** of the financial statements in accordance with generally accepted accounting principles.
- Unqualified Opinion
- Modified Opinion: Qualified/Disclaimer/Adverse

Accounting Policies Analysis :

- Useful in evaluating the:
  - **Credibility** of the financial statements
  - **Reliability** of the reported earnings,
  - **Comparing** data among companies, industry, and reporting periods

Accounting Policies Analysis :

Shall Includes:

- All Significant Accounting Policies
- accounting policies used that are peculiar to the industry;
- unusual or innovative applications of NAS;
- Material changes in accounting policy

Financial Statement Evaluation

<u>Shall Includes:</u>

- Gain an overall perspective
- Identify major strengths and weaknesses in the company's financial position

<u>Helps to identify</u>

- unusual changes such as turning points in the trends of sales revenue, expense, income, asset structure, liabilities, capital structure, and cash flows.

Why??

D2

- End of all overall Performance
- End of Results
- Collective and Authentic Data

Prepare Financial Statements

Slide 36

D2 what does this slide means?

Dell, 2/22/2015

Financial Statements: Quotes

If they have not issued a **financial statement**, that's a company to stay away from. You can't do any evaluation without looking at assets and revenues.

~ ***Harry Eisenberg***

Financial Statements: Quotes

" There are far many more assets in your company than those that come up on the **financial statement**. Managing a company successfully involves more than just managing the stuff on the balance sheet. "

~ ***Tamara MacDuff***

Standing Ahead on Service

"You'll never have a product or price advantage again.
They can be easily duplicated, but a strong customer service culture can't be copied."

-JERRY FRITZ

Business is not just doing deals; business is having great products, doing great engineering, and providing tremendous service to customers.

- -Ross Perot

What is expected ?

- Knowing how to work with the numbers in a company's financial statements is an essential skill for stock investors.
- The meaningful interpretation and analysis of balance sheet, income statement and cash flow statement to discern a company's investment qualities is the basis for smart investment choices.
- However, the diversity of financial reporting requires that we first become familiar with certain general financial statement characteristics before focusing on individual corporate financials.
- Through this training course, we'll show you what the financial statements have to offer and how to use them to your advantage.

Financial Terms:

- Financial Statements
- Financial Position
- Asset
- Liability
- Equity
- Financial Performance
- Income
- Expenses
- SOCE
- Cash Flows

Objective of Financial Statements :

Provide Information about:

- Financial Position
- Financial Performance
- Cash Flows
- Results of Utilization of Resources

Via,

- Assets; Liabilities; Equity; Income and Expenses, including gains and losses; other changes in equity; and Cash flows

Financial Concepts:

- Responsibility for Financial Statements
- Materiality and Aggregation
- Offsetting
- Comparative Information
- Going Concern Assessments
- Materiality Assessments

Structure and Contents of Financial Statements :

Balance Sheet

- Current/Non Current Distinctions
- Information to be presented on the face of the balance sheet
- Information to be presented either on the face of the balance sheet or in the notes

Income Statement

- Information to be Presented on the Face of the Income Statement
- Information to be presented either on the face of the income statement or in the notes

Structure and Contents of Financial Statements :

- Statement of Changes in Equity
- Notes to the financial statements Structure
- Disclosure of accounting policies

The Income Statement

Income Statement :

- Operating Revenues
- Cost of sales
- Administrative Expenses
- Selling and distribution expenses
- Operating profits
- Other income
- Other expense
- Share of profits of associated companies
- Taxes on Net Income
- Unusual Items
- Minority Interest
- Net Income After Tax

What is an Income Statement?

- A report that shows how much **revenue** a company earned over a specific **time frame.**
- It also shows the **costs and expenses** incurred for earning that revenue.
- Investors can find a number of **other valuable information's** on the income statement including the company’s sales, profitability, retained earnings, gross profit, and operating income.
- Income statements show Profit/ Loss of a company over a period of time.

Income Statement

Nomenclature

- **For Profit Seeking Concern :** It is termed as Profit and Loss Account
- **For Non Profit Seeking Concern :** It is termed as Income and Expenditure Account

Considerations

- **As per existing Nepal Accounting Standards:** Only realized income and expenses are considered.
- **As per IFRS :** Unrealized income and Unrealized expenses are also reported in the form of statement of other comprehensive income.

Income statement (Trading and Profit & Loss Account)

- What is the difference between Trading account and profit and loss account?
- The main **difference between trading account and profit and loss account** is that:
  - the gross profit or loss which is derived from the trading account shows the trend of the business;
  - the profit and loss account reflects on the management of the business the final outcomes of the concern.

Income statement (Trading and Profit & Loss Account)

- Trading account deals with the cost price of the goods. All the expenses directly connected with the buying of goods are entered in it. It is credited with the sale proceeds of the goods.
- Profit and loss account deals with the expenses indirectly connected with the goods (expenses with the selling of the goods.) administrative and other expenses to run the office.

Analyzing the Income Statement

Revenue and Gross Margin

- ***Net Sales* (sales or revenue):** It refer to the gross inflow of cash, receivable or other considerations arising from sale of goods, rendering of service , interest, royalty and dividend.

- ***Cost of Production* (Cost of goods sold (COGS), and cost of services):** It is the **cost of creating the product** that company sells. Only the cost which can be **directly attributable** to production of goods are included.(e.g.. Direct Material, Direct Labor).It excludes indirect expenses .

- ***Gross Profit* (Gross income or gross margin):** It is the **difference between companies Revenue and Cost of Production**. It is calculated before deducting other indirect expenses. It is an important factor as it defines how efficiently management uses its material and labor in the production process.

Operating Expenses and Operating Margin

- ***Selling, General and Administrative Expenses***: This comprises a company's operational expenses such as administrative salary, selling and distribution expense, depreciation.
- **Operating margin** is the earning before interest and tax (EBIT).
- Operating Margin Ratio = $\dfrac{\text{Operating Income}}{\text{Revenue}}$
- It is the total revenue from product sales **less** all costs **before** adjustment for **taxes, dividends to shareholders, and interest on debt.**

Earnings Before Interest and Taxes

- It is a measure of a firm's Operating profit that includes all expenses except interest and income tax expenses.
- **EBIT = Revenue – Operating expenses + Non-operating income**
- It nullifies the effects of the different capital structures and tax rates used by different companies since it do not take into account any interest and tax payment.

Net Income and Earnings Per Share

- ***Net Income* (Net profit or net earnings):** It is the amount of sales revenue left over after all operating expense, interest and tax have been deducted. It can also be defined as **net increase in Shareholder s** equity that results from operation.
- **Earnings per share (EPS)** : The portion of a company s profit allocated to each outstanding share of common stock. EPS Serve as base for indicating companies profitability as well as for calculating various other ratios.

$$EPS = \frac{\text{Net Income} - \text{Dividend on } \textbf{preferred stock}}{\text{Average Outstanding Shares}}$$

The Balance Sheet

What is a balance sheet?

- A balance sheet provides detailed information about company’s assets, liabilities and shareholders’ equity.
- The following formula summarizes what a balance sheet shows: ASSETS = LIABILITIES + SHAREHOLDERS' EQUITY
- It is important to note that a balance sheet is a snapshot of the **company's financial position at a single point in time**.
- The purpose of the balance sheet is to give users an idea of the company's financial position along with displaying what the company owns and owes.

Balance sheet

- A **balance sheet** is a statement drawn up at the end of each trading period stating therein all the assets and liabilities of a business arranged in the customary order to exhibit the true and correct state of affairs of the concern as on a given date.
- A *balance sheet* is prepared from a trial balance after the balances of nominal accounts are transferred to the trading account or to the profit and loss account.
- The remaining balances of personal or real accounts represent either assets or liabilities at the closing date.
- These assets and liabilities are shown in the balance sheet in a classified form - the assets being shown on the right side and the liabilities on the left hand side

Grouping of items

- In a balance sheet assets and liabilities should be properly grouped and classified under appropriate headings.
- The individual balance of each debtor's and creditor's account need not be shown. Debtors and creditors should be shown in total.
- It is of great importance that the different assets and liabilities should be arranged in the balance sheet on certain principles i.e. Liquidity basis; permanence; mixed – assets on liquidity and liabilities on permanence

Classification of assets

- **Fixed assets** are assets which are acquired not for sale but for permanent use in the business e.g., land and buildings, plant and machinery, furniture etc. These assets help the business to be carried on..
- **Current assets** denote those assets which are held for sale or to be converted into cash after some time e.g., sundry debtors, bills receivables, stock of goods etc.
- **Liquid assets** are those assets which are with us in cash or easily converted into cash e.g., cash in hand, cash at bank, investments etc.

Classification of assets contd..

- There are assets which have no physical existence. Which can neither be seen with eyes not touched with hands. These are called **intangible assets** or **fictitious assets**.
- They do not represent any thing valuable. They include debit balance of profit and loss account, goodwill etc. D1
- A **contingent asset** is one which comes into existence upon the happening of a certain event. If that event happens the asset becomes available, otherwise not. For example uncalled capital of a limited company.
- Expenses paid in advance i.e., prepaid expenses, and income earned but not received are known as **outstanding assets**

Slide 62

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Balance Sheet :

ASSETS

- Cash / Bank
- Marketable securities
- Receivables
- Inventories
- Loans, Advances & Deposits
- PPE
- Investments
- Receivables
- Goodwill (Intangible assets)
- Deferred expenditure

LIABILITIES

- Current Liabilities
- Loans
- Payables
- Other liabilities and provisions

Changes in Equity

- A statement of changes in equity summarizes the movement in the equity accounts during the year namely share capital, share premium, retained earnings, revaluation surplus, unrealized gains on investments, etc.
- A statement of changes in equity is an important component of financial statements since it explains the composition of equity and how has it changed over the year.

Shareholders Interest :

- Share Capital
- Reserves
- Retained Earnings

Notes to Account/ Policies :

Accounting policies are the specific principles, bases, conventions, rules and practices adopted by an entity in preparing and presenting financial statements

Notes to Account/ Policies :

- Significant accounting policies
- Unusual items
- Taxation/Deferred Taxation
- Receivables
- Inventories
- Property, Plant and Equipment
- Investments
- Deferred expenditure
- Payables
- Loans
- Other liabilities
- Share capital
- Reserves
- Commitments
- Contingencies
- Investments in subsidiaries
- Investments in associated companies
- Acquisition/disposal of subsidiaries
- Interest in joint venture
- Details of loans
- Related parties
- Event subsequent to balance date
- Segment information
- Lease
- Employee Benefits
- Impairment of Assets

Questions

Interpreting and Analyzing Financial Statements

Nepal CRS Company

Presented By:
T R Upadhya & Co.
Chartered Accountants

Training Schedule : DAY 2

Session	Time	Topics
I	9:00 to 10:30 AM 10.30 to 11.00 AM	Analyzing the Balance Sheet The statement of Cash Flow
	11:00 to 11:10 AM	Tea Break
II	11:10 to 13:00	Analyzing the statement of Cash Flow
	13:00 to 13:45	Lunch
III	13:45 to 15:30	Analyzing the statement of Cash Flow
	15:30 to 15:40	Tea Break
IV	15:40 to 16:45 16.45 to 17.00	Interpretation of FS for donor perspective Summary for the day

The Balance Sheet

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Slide 8

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Dell, 2/22/2015

Balance Sheet :

ASSETS

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- Loans, Advances & Deposits
- PPE
- Investments
- Receivables
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- Deferred expenditure

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- Acquisition/disposal of subsidiaries
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- Details of loans
- Related parties
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- Segment information
- Lease
- Employee Benefits
- Impairment of Assets

Analyzing the Balance Sheet

Short Term Assets/Current Asset

- Those balance sheet items that represents the value of all assets that are consumed in normal course reasonably expected to be converted into cash or cash equivalents within one year in the normal course of business.
- Include cash, accounts receivable, inventory, marketable securities, prepaid expenses and other liquid assets that can be readily converted to cash.
- Important to business because they are the assets that are used to fund day-to-day operations and pay ongoing expenses.

Working Capital Management

- Working capital management ensures a company has sufficient cash flow in order to meet its short-term debt obligations and operating expenses.
- *Working capital management* involves the relationship between a firm's short-term assets and its short-term liabilities.
- The management of working capital involves managing inventories, accounts receivable and payable, and cash.
- **Working Capital = Current Asset – Current Liabilities.**

Long Term Assets/ Non Current Asset

An asset that will *not* turn into cash or be consumed within one year.

Includes the following:

- **Long-term investments:** such as investments in stocks and bonds of other company, the cash surrender value of life insurance policies owned by the company, real estate awaiting to be sold, etc.
- **Property, plant and equipment:** such as land, buildings, machinery, equipment, vehicles, fixtures, etc. that are used in the business.
- **Intangible assets:** Such as trademarks, patents, customer lists, goodwill, etc. that were acquired in a transaction.
- **Deferred charges:** Such as bond issue costs that are being amortized over the life of the bonds and deferred income taxes that pertain to certain assets.

Short Term Liabilities or Current Liabilities

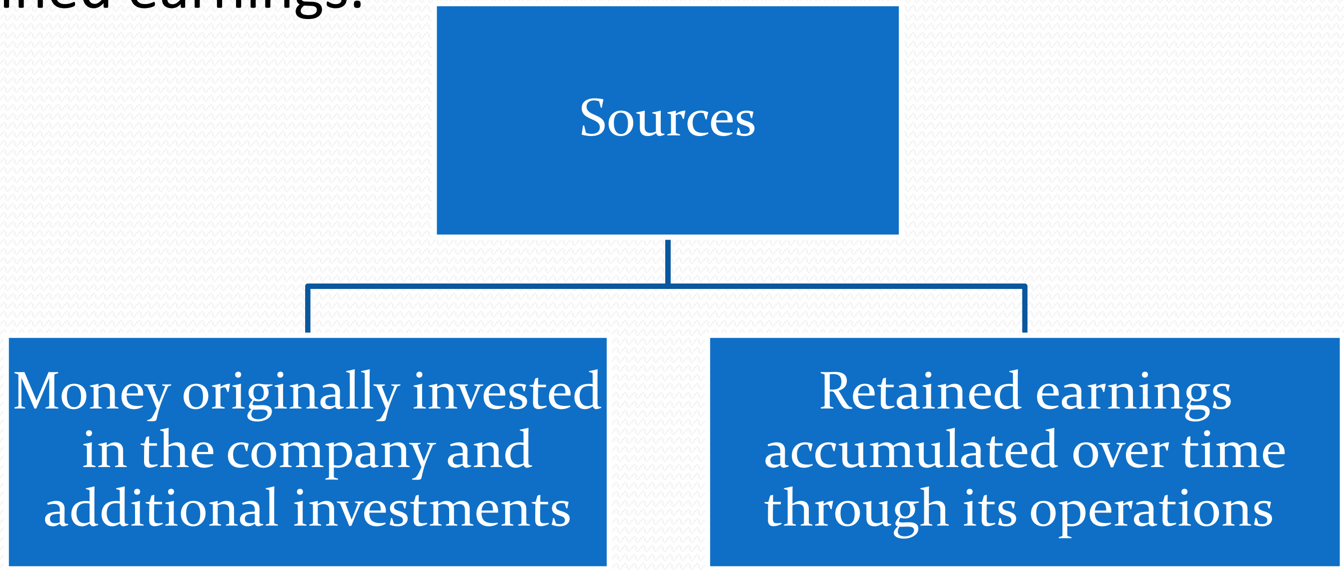
- All liabilities of the business that are to be settled in cash within the fiscal year or the operating cycle of a given firm, whichever period is longer.
- Obligations that will be settled by current assets or by the creation of new current liabilities.
- Eg: creditors, salary payable, provisions for expenses

Long Term Liabilities/ Non Current Liability

- Obligations which a business is expected to pay in the next year or in the next operating cycle.
- Shows that you have to pay something off in a time period longer than one year.
- Long-term liabilities include items like debentures, loans, deferred tax liabilities, bonds payable, leases and pension obligations.

Shareholder's Equity

- Represents the interest of a company's shareholders in the net assets of the company.
- Shareholders' equity = Assets – Liabilities
- Includes its components such as common stock, preferred stock, additional paid-up capital, accumulated income and retained earnings.



Changes in Equity

- A statement of changes in equity summarizes the movement in the equity accounts during the year namely share capital, share premium, retained earnings, revaluation surplus, unrealized gains on investments, etc.
- A statement of changes in equity is an important component of financial statements since it explains the composition of equity and how has it changed over the year.

Changes in Equity

- Typical information we can get from a statement of changes in equity include:
  - The amount of new share capital issued
  - The amount of dividend paid during the year to shareholders
  - The amount by which PPE is valued up or valued down
  - The amount of net income earned during the year
  - The amount of net income retained during the year
  - Any movement in the unrealized loss or gain reserve and reserve for changes in foreign exchange gain or loss, etc

The Statement of Cash Flow

Cash Flow Statement :

Types of Cash Flow

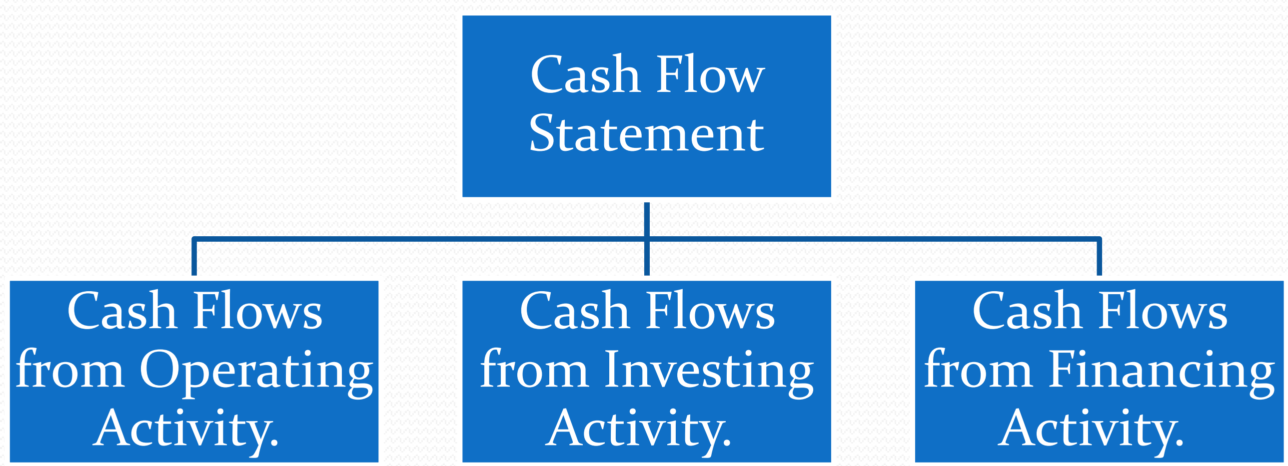
Investing Activities
Financing Activities
Operating Activities

Methods

Direct Method
Indirect Method

What is a statement of cash flow?

- Reports a company’s inflows and outflows of cash and cash equivalent.
- A financial statement which summarizes cash transactions of a business during a given accounting period.
- Provides relevant information in assessing a company's liquidity, quality of earnings and solvency.



Statement of Cash flow

- Why cash flow statement is needed?
  - Because the income statement is prepared under the accrual basis of accounting, the revenues reported may not have been collected.
  - Similarly, the expenses reported on the income statement might not have been paid.
  - You could review the balance sheet changes to determine the facts, but the cash flow statement already has integrated all that information. As a result, savvy business people and investors utilize this important financial statement.

Cash flows contd..

- The cash from operating activities is compared to the company's net income.
- If the cash from operating activities is consistently greater than the net income, the company's net income or earnings are said to be of a "high quality".
- If the cash from operating activities is less than net income, a red flag is raised as to why the reported net income is not turning into cash

Cash flows contd..

- Some investors believe that "cash is king". The cash flow statement identifies the cash that is flowing in and out of the company.
- If a company is consistently generating more cash than it is using, the company will be able to increase its dividend, buy back some of its stock, reduce debt, or acquire another company.
- All of these are perceived to be good for stockholder value.

Analyzing the Statement of Cash Flow

Cash Flow From Operations

Cash flows from the principal revenue generation activities such as :

- Cash receipt from sale of goods and rendering of services.
- Cash receipt from royalty, fees, commission
- Cash payment to supplier for goods and services
- Cash payment to and on behalf of employees
- Cash payment or refund of income tax unless they can be specifically identified with financing and investing activity
- Two methods: <u>Direct Method</u> and <u>Indirect Method</u>.

Cash Flow From Investing

Represents the cash flows on resources intended to generate future income and cash flows such as:

- Cash payment/receipt to acquire/dispose fixed assets (including intangibles)
- Cash payment / receipt from repayment of advance and loans made to third party (except for BFIs)
- Cash payment / receipt from purchase/ disposal of securities (other than those held for dealing or trading)

Cash Flow From Financing

- Enables predicting claims on future cash flows by provider of funds(i.e. capital and borrowing) such as:
- Cash proceeds from issuing shares or other instruments
- Cash proceed from issuing debenture, loans, bonds, and other short and long term borrowings
- Cash repayments of amount borrowed
- Dividend payments etc.

Cash Flow From Financing

- Practical

Interpretation from Donor's Perspective

- CRS has been synonymous with Family Planning through social marketing of condoms and other products for family planning and health.
- Higher sales of commodities indicates greater achievement of objectives. Hence more interested in knowing about trend in sales.
- Similarly Variance Analysis of expenses like cost of goods sold, distribution and administrative expenses would be of matter of concern to donors for evaluating efficiency in cost management.

Interpretation from Donor's Perspective

- The following items are of donor's interest:
  - Sales trend over the years
  - Admin expenditure trend over the years
  - Selling and distribution expense trend over the years
  - Cash/ liquidity position of the company – cash flow analysis
  - Current assets vs current liabilities
  - Long term borrowings, if any
  - Stock in hand
  - Over all financial position

Questions

Interpreting and Analyzing Financial Statements

Nepal CRS Company

Presented By:

T R Upadhya & Co.

Chartered Accountants

Training Schedule : DAY 3

Session	Time	Topics
I	9:00 to 9:45 AM 9.45 to 10.15 AM 10.15 to 11.00	Introduction to Financial Ratios Activity Ratios Efficiency Ratios Liquidity Ratios
	11:00 to 11:10 AM	Tea Break
II	11:10 to 12:00 12.00 to 13.00	Solvency Ratios Profitability Ratios
	13:00 to 13:45	Lunch
III	13:45 to 14:30 14:30 to 15:30	DuPont Analysis Valuation Ratios
	15:30 to 15:40	Tea Break
IV	15:40 to 16:45 16.45 to 17.00	Break-even Analysis Summary for the day

RATIO ANALYSIS

Purpose

- To identify aspects of a business's performance to **aid decision making**

- Quantitative process – may need to be supplemented by qualitative factors to get a complete picture

Introduction to Financial Ratios

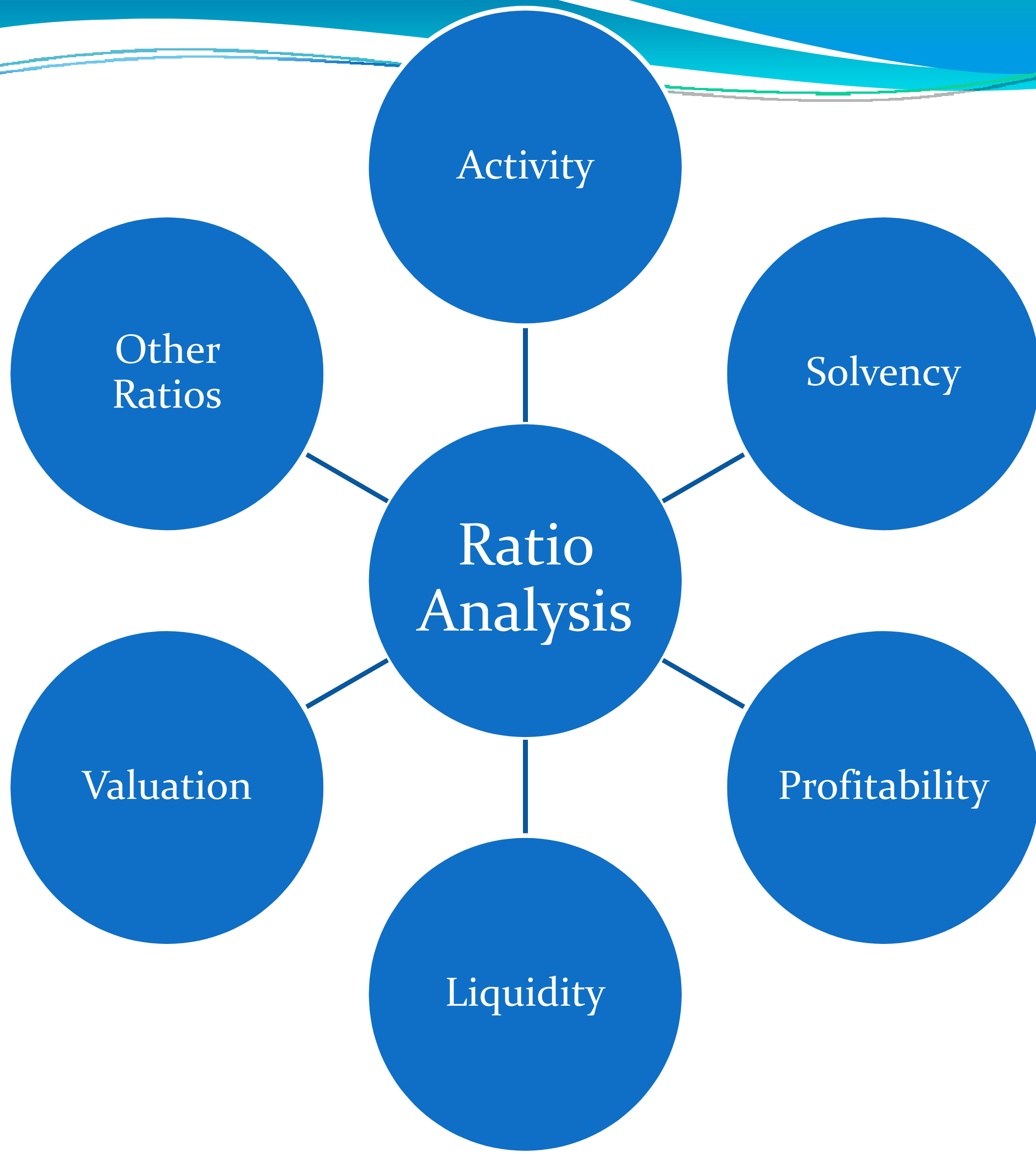
What to expect from the Course?

This course covers the Financial ratio analysis and interpretation of following ratios:

- Activity ratios
- Liquidity ratios
- Solvency ratios
- Profitability ratios
- Dupont analysis
- Valuation ratios and
- Breakeven analysis

What am I going to get from this course?

- Should be able **calculate ratios**
- Understand the **intuition** behind ratios
- **Ability to comment** on the implications of the change in ratio


Activity
Other
Ratios
Solvency
Ratio
Analysis
Valuation
Profitability
Liquidity

ACTIVITY RATIOS

Inventory Turnover Ratio

- Measures the number of times per period, a business sells and replaces its entire batch of inventory again.
- **Formula:**

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

- Measure the inventory management efficiency of a business.
- Comparison would only be fair if made between businesses of same industry.
- **Interpretations:**

Higher value	Indicates better performance
Lower value	Inefficiency in controlling inventory levels and maybe an indication of over-stocking which may pose risk of obsolescence and increased inventory holding costs
Very high value	Loss of sales due to inventory shortage

Days' Inventory on Hand Ratio

- Measures the number of days a company takes to sell its average balance of inventory. Also an estimate of the number of days for which the average balance of inventory will be sufficient.
- **Formula:**

$$\text{Days of Inventory} = \frac{\text{Number of Days in the Period}}{\text{Inventory Turnover for the Period}}$$

- Business must try to reduce the level of inventory
- **Interpretations:**

Lower values	Generally favorable. Results from lower level of inventory
Higher values	Generally unfavorable. Results from higher level of inventory.

Accounts Receivable Turnover Ratio

- Estimates the number of times a business collects its average account receivable balance during a period.
- **Formula:**

$$\text{Receivables} = \frac{\text{Net Credit Sales or Turnover}}{\text{Average Accounts Receivable}}$$

- **Interpretations:**

Higher values	Generally favorable. Indicates the efficiency of business in collecting its credit sale.
Lower values	Generally unfavorable. Indicate inefficiency in collecting outstanding sales.

Days' Sales Outstanding (DSO) Ratio

- Measure the average number of days a business takes to collect its trade receivables after they have been created.
- **Formula:**

$$DSO = \frac{(\text{Accounts Receivable} \times \text{Number of Days})}{\text{Credit Sales}}$$

- **Interpretations:**

Lower value	**Generally favorable. Indicates the efficiency of sales collection activities.**
Higher value	Generally unfavorable. Indicates inefficiency in credit sales collection.

Accounts Payable Turnover Ratio

- Measures short term liquidity of business since it shows how many times during a period, an amount equal to average accounts payable is paid to suppliers by a business.
- **Formula:**

$$\text{Ratio} = \frac{\text{Net Credit Purchases Turnover}}{\text{Average Accounts Payable}}$$

- **Interpretations:**

Higher values	**Generally favorable. Indicates that the business was able to repay its suppliers quickly.**
Lower values	Generally unfavorable.

Days Payable Outstanding

- Measures the average number of days in which a company pays its suppliers.
- **Formula :**

$$DPO = \frac{(\text{Number of Days in a Period} \times \text{Average Trade Payables})}{\text{Purchases}}$$

- **Interpretations:**

Lower value	**Generally favorable. Indicates good working capital management because the company is availing early payment discounts.**
Higher value	Generally unfavorable. Suggests that the company is facing problems paying its suppliers

Working Capital Turnover Ratio

- Measures rupees of revenue generated per rupee of investment in working capital.
- **Formula:**

$$\text{Working Capital Turnover Ratio} = \frac{\text{Revenue}}{\text{Average Net Working Capital}}$$

Average Working Capital=

$$\frac{\text{(Opening Working Capital + Closing Working Capital)}}{2}$$

- **Interpretations:**

Higher values	**Generally favorable. Indicates that the company is utilizing its working capital more efficiently i.e. generating more revenue using less investment.**
Lower values	Generally unfavorable.

Fixed Asset Turnover Ratio

- Measures the rupees of revenue earned per one rupee of investment in fixed assets.
- **Formula :**
  - Fixed Assets Turnover Ratio= $\dfrac{\text{Net Revenue}}{\text{Average Fixed Assets}}$
  - Net Revenue = Gross Revenue – sales returns
  - Average Fixed Assets =

$$\frac{\text{Opening Balance of Fixed Assets + Ending Balance of Fixed Assets}}{2}$$

- **Interpretations:**

Higher values	Generally favorable.
Lower values	Generally unfavorable.

Total Asset Turnover Ratio

- Measures the rupees of revenue earned per one rupee of investment in total assets.
- **Formula:**

$$\text{Total Asset Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Total Assets}}$$

- **Interpretations:**

Higher values	Generally favorable. Suggests that the company is using its assets efficiently
Lower values	Generally unfavorable. Suggests that the company is not using its assets optimally

Activity Ratio: Summary

Ratio	2011/12	2010/11	Trend
Inventory Turnover Ratio/ (in days)	4.08 (90 days)	5.68 (64 days)	↓
Accounts Receivable Turnover Ratio/ (in days)	1.51 (242 days)	1.50 (243 days)	↑
Accounts Payable Turnover Ratio/ (in days)	0.60 (604 days)	0.84 (433 days)	↓
Working Capital Turnover Ratio	0.23	0.29	↓
Fixed Asset Turnover Ratio	3.86	3.74	↑
Total Asset Turnover Ratio	0.21	0.27	↓

LIQUIDITY RATIOS

Current Ratio

- Measures whether the current assets are enough to settle current liabilities.
- **Formula:**

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

- **Interpretations:**

CR > 1	Generally favorable.
CR < 1	Unfavorable. critical liquidity problems because it means that total current liabilities exceed total current assets.

Quick Ratio / Acid Test Ratio

- Measures the ability of a company to pay its debts by using its liquid assets i.e. cash and near cash current assets (i.e. accounts receivable and marketable securities).
- **Formula**:

$$\text{Quick Ratio} = \frac{(\text{Cash} + \text{Marketable Securities} + \text{Receivables})}{\text{Current Liabilities}}$$

$$\text{Quick Ratio} = \frac{(\text{Current Assets} - \text{Inventory} - \text{Prepayments})}{\text{Current Liabilities}}$$

- **Interpretations:**

QR > 1	**Preferable. Indicates that the most liquid assets of a business exceed its total debts. However, very high value of quick ratio may indicate inefficiency.**
QR = 1	Indicates that most liquid assets of a business are equal to its total debts and the business will just manage to repay all its debts by using its liquid assets.
QR < 1	Indicates that a business would not be able to repay all its debts by using its most liquid assets.

Cash Ratio

- Measures the ability of a business to repay its current liabilities by only using its cash and cash equivalents and nothing else.
- **Formula:**

$$\text{Cash Ratio} = \frac{(\text{Cash} + \text{Cash Equivalents})}{\text{Current Liabilities}}$$

- **Interpretation:**

CR => 1	**Indicates means that the business will be able to pay all its current liabilities in immediate short term. Therefore, creditors usually prefer high cash ratio.**
CR < 1	Indicates that a business would not be able to pay all its current liabilities in immediate short term.

Defensive Interval Ratio

- Measures the number of days for which the company's current quick assets can finance its daily cash expenditures assuming it is not expected to receive any cash inflows during the period.
- **Formula:**

$$\text{Defensive Interval Ratio} = \frac{\text{Quick Assets}}{\text{Daily Cash Expenses}}$$

Quick Assets = Cash + Marketable Securities + Receivables

- **Interpretation:**

Lower DIR	**Indicates liquidity problems unless there are sufficient expected cash inflows over the period.**

Cash Conversion Cycle

- Cash conversion cycle is the time it takes a company to convert its resource inputs into cash. It measures how effectively a company is managing its working capital.
- **Formula:**

Cash Conversion Cycle = DSO + DIO – DPO

- Where DSO is days sales outstanding,
- DIO is days inventory outstanding and
- DPO is days payables outstanding.

It can also be calculated if we already know the operating cycle:

- Cash Conversion Cycle = Operating Cycle – Days Payables Outstanding

- **Interpretation:**

Short	**Indicates that the cash is locked up for a relatively smaller period of time**

Liquidity Ratio: Summary

Ratio	2011/12	2010/11	Trend
Current Ratio	7.26	4.56	↑
Quick Ratio	7.18	4.47	↑
Cash Ratio	5.77	3.47	↑
Defensive Interval	61.50	67.69	↓
Cash Conversion Cycle	(272)	(126)	↓

SOLVENCY RATIOS

Debt Asset Ratio

- Measures the portion of the assets of a business which are financed through debt.
- **Formula**:

$$\text{Debt Ratio} = \frac{\text{Total Liabilities (i.e. current \& non current liabilities)}}{\text{Total Assets}}$$

- **Interpretation.**

Lower value	Favorable
higher value	Indicates that higher portion of company's assets are claimed by it creditors which means higher risk in operation since the business would find it difficult to obtain loans for new projects.

Debt to Capital Ratio

- Measures how much of the capital employed (i.e. the resources on which the company pays a cost) is debt.
- **Formula:**

$$\text{Debt-to-Capital Ratio} = \frac{\text{Interest-bearing Debt}}{(\text{Interest-bearing Debt} + \text{Shareholders' Equity})}$$

- **Interpretation:**

Lower value	Favorable
Higher value	Indicates higher risk of insolvency.

Debt to Equity Ratio

- Measures the degree to which the assets of the business are financed by the debts and the shareholders' equity of a business.
- **Formula:**

$$\text{Debt-to-Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholders' Equity}}$$

- **Interpretation:**

Lower value	Favorable. Indicating lesser risk.
Higher value	Unfavorable. Indicates that the business relies more on external lenders thus it is at higher risk, especially at higher interest rates. .

Financial Leverage

- It is the extent to which fixed-income securities and preferred stock are used in company's capital structure.
- Measures the percentage change in EPS for a unit change in earnings before interest and taxes (EBIT), and can be mathematically represented as follows:

$$FL = \frac{EBIT}{(EBIT - Interest)}$$

- **Interpretation:**

Higher value	EPS is more volatile
Lower value	EPS is lesser volatile

Interest Coverage Ratio

- Determines how easily a company can pay interest on outstanding debt.
- **Formula:**

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

- **Interpretation:**

Lower value	**Indicated that company is burdened by debt expense and that the ability to meet interest expense may be questionable.**
If ICR<1	Indicates the company is not generating sufficient revenues to satisfy interest expenses.

Fixed Charges Coverage Ratio

- Measures whether earnings before interest, taxes and lease payments are sufficient to cover the interest and lease payments.
- **Formula:**

$$\text{Fixed Charge Coverage} = \frac{(\text{EBIT} + \text{Lease Payments other than Interest Portion})}{(\text{Interest Payments} + \text{Lease Payments})}$$

- **Interpretation:**

Higher value	Indicated better solvency situation of the company
Lower value	Indicates insolvency risk of the company

PROFITABILITY RATIOS

Gross Margin Ratio

- Measuring what proportion of revenue is converted into gross profit (i.e. revenue less cost of goods sold).
- **Formula:**

$$\text{Gross Margin} = \frac{\text{Gross Profit}}{\text{Revenue}}$$

- **Interpretation :**

Higher value	**Indicate that more paisa are earned per rupee of revenue which is favorable because more profit will be available to cover non-production costs**

Operating Margin Ratio

- Operating margin ratio or return on sales ratio is the ratio of operating income of a business to its revenue.
- **Formula:**

$$\text{Operating Margin} = \frac{\text{Operating Income}}{\text{Revenue}}$$

- **Interpretation:**

Higher value	**Favorable .Indicates that more proportion of revenue is converted to operating income.**

Pre-tax Profit Margin

- Measures the pre tax profitability of the company.
- **Formula:**

$$\text{Pre tax Profit Margin} = \frac{\text{Earning before Tax}}{\text{Revenue}}$$

- **Interpretations:**

Higher value	**Favorable .The more profitable the company.**

Net Profit Margin

- Measures the percentage of net income of an entity to its net sales.
- Enables to compare profitability of competitors in the same industry.
- **Formula:**

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Net Sales}}$$

Net Sales = (Gross Sales – Sales Tax – Discounts – Sales Returns)

- **Interpretation:**

Higher value	Favorable .The more profitable the company.

Return On Assets (ROA) Ratio

- Measures efficiency of the business in using its assets to generate net income. Return on assets indicates the number of paisa earned on each rupee of assets.
- **Formula:**

$$\text{ROA} = \frac{\text{Annual Net Income}}{\text{Average Total Assets}}$$

- **Interpretation**

Higher value	Favorable. Indicates better utilization of the assets and higher profitability of the business.
Increasing trend	Indicates that the profitability of the company is improving
Decreasing trend	Means that profitability is deteriorating.

Return on Total Assets

- Measures how effectively a company is using its net assets to generate earnings before contractual obligations must be paid.
- **Formula:**

$$ROTA = \frac{EBIT}{\text{Total Net Assets}}$$

where EBIT = Net Income + Interest Expense + Taxes

- **Interpretations:**

Higher value	**Favorable. Indicates better utilization of the net assets and higher profitability of the business.**

Return On Equity (ROE) Ratio

- Measure of profitability of stockholders' investments. It shows net income as percentage of shareholder equity.
- **Formula:**

$$ROE = \frac{\text{Annual Net Income}}{\text{Average Stockholders' Equity}}$$

- **Interpretation**

Higher value	**Favorable . Indicates that the company is efficient in generating income on new investment**

Profitability Ratio: Summary

Ratio	2011/12	2010/11	Trend
Gross Profit Margin	73%	62%	↑
Operating Profit Margin	(22.47)%	(14.30)%	↓
Net Profit Margin	92.62%	84.52%	↑
Return on Assets	19.90%	22.52%	↓

3 Stage DuPont Analysis

- A simple calculation of ROE does not provide the whole picture.
- If a company's ROE is lower than its peers, the three or five-step identities can help show where the company is lagging.
- It can also shed light on how a company is lifting or propping up its ROE and hence **better analysis**.

- The three-step equation breaks up ROE into three very important components:

  ROE = (net profit margin) * (asset turnover) * (equity multiplier)

  - **Operating efficiency** - as measured by profit margin.
  - **Asset use efficiency** - as measured by total asset turnover.
  - **Financial leverage** - as measured by the equity multiplier.

3 Stage DuPont Calculation

1. Multiplying the equation by (sales / sales), we get:

$$ROE = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Shareholders' Equity}}$$

NET PROFIT MARGIN

EQUITY TURNOVER RATIO

Now ROE is broken into two components:

2. Now by multiplying in (assets / assets), we get:

$$ROE = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Shareholders' equity}}$$

Net Profit Margin: How much profit the company gets out of its revenues

Asset Turnover: How effectively the company makes use of its assets

Equity Multiplier : Measure of how much the company is leveraged

5 Stage DuPont Analysis

The Five-Step Calculation

1. Since the numerator of the net profit margin is net income, this can be made into earnings before tax (EBT) by multiplying the three-step equation by 1 minus the company's tax rate:

$$\text{ROE} = \frac{\text{Earnings before tax}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}} \times (1 - \text{tax rate})$$

2. Since earnings before taxes is simply EBIT minus the company's interest expense. After substitution:

$$\text{ROE} = \left\{ \frac{\text{EBIT}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} - \frac{\text{Interest Expense}}{\text{Assets}} \right\} \times \frac{\text{Assets}}{\text{Equity}} \times (1 - \text{tax rate})$$

5 Stage DuPont Analysis (Cont.)

3. The practicality of this breakdown is not as clear as the three- step, but this identity provides us with:

$$\text{ROE} = \left[\underbrace{\frac{\text{EBIT}}{\text{Sales}}}_{\text{Operating Profit Margin}} \times \underbrace{\frac{\text{Sales}}{\text{Assets}}}_{\text{Asset Turnover}} - \underbrace{\frac{\text{Interest Expense}}{\text{Assets}}}_{\text{Interest Expense rate}} \right] \times \underbrace{\frac{\text{Assets}}{\text{Equity}}}_{\text{Equity Multiplier}} \times \underbrace{(1 - \text{tax rate})}_{\text{Tax Retention Rate}}$$

VALUATION RATIOS

Price to Earnings Ratio

- Measures whether the share price of a company is fairly valued, undervalued or overvalued.
- **Formula:**

$$\text{P/E Ratio} = \frac{\text{Current Share Price}}{\text{Earnings per Share}}$$

- For financial analysis justified P/E ratio is calculated using dividend discount method.

$$\text{P/E Ratio} = \frac{\text{Expected Payout Ratio}}{\text{(Required Rate of Return – Dividend Growth Rate)}}$$

- **Interpretation:**

Justified P/E ratio > Current P/E ratio	**Indicates the share is undervalued and should be purchased.**
Justified P/E ratio < Current P/E ratio	Indicates the share is overvalued and should be sold.

Price to Book / Market to Book Ratio

- Measures the proportion of the current market price of a share of a company's common stock to the book value per share of the company.
- **Formula :**

$$\text{Price to Book Ratio} = \frac{\text{Current Share Price}}{\text{Book Value per Share}}$$

Book value per share :

$$\text{Book Value per Share} = \frac{\text{Total Shareholders' Equity}}{\text{Total Number of Shares Outstanding}}$$

- **Interpretations:**

Price to Book Ratio > 1	**Indicates investors value the company above the face value of the company's assets as they appear in financial statement.**
Price to Book Ratio < 1	Indicates investors value the company below the face value of the company's assets as they appear in financial statement.

Price to Sales Ratio

- The price-to-sales ratio is an indicator of the value placed on each rupee of a company's sales or revenues.
- **Formula:** (Over 12 months)

$$= \frac{\text{Market Capitalization}}{\text{Total Sales}} \quad \text{or} \quad \frac{\text{Stock Price}}{\text{Sales per share}}$$

- **Interpretations:**

Price to Sales Ratio < 1	**Indicates better investment since the investor is paying less for each unit of sales.**
Price to Sales Ratio > 1	Indicates better investment since the investor is paying more for each unit of sales.

Price-To-Cash-Flow Ratio

- Indicator of a stock's valuation.
- Useful for valuing stocks that have positive cash flow but are not profitable because of large non-cash charges.
- **Formula:**

$$\text{Price to Cash Flow Ratio} = \frac{\text{Share Price}}{\text{Cash flow per Share}}$$

- **Interpretation:**

Lower Ratio	Indicate the stock may be undervalued
Higher Ratio	Indicate the stock may be potentially overvalued

Other Ratios

Ratios which are relevant to Non Profit Seeking Concern

1. Self Sufficiency Ratio
2. Revenue Ratios

Self Sufficiency Ratio

The self-sufficiency ratio measures the extent to which a nonprofit can cover its operating expenses through earned income. This ratio is primarily useful for organizations that have earned revenue through sales, memberships fees or interest income.

Ideal ratio is 0.4:1

Formula

$$\frac{\text{Total Earned Income*}}{\text{Total Expenses}}$$

*Total Earned Income = Net Sales + Interest Income

Ratio	FY 2011/12	FY 2010/11	Comment
Self Sufficiency Ratio	1.01	1.04	Ratio shows company has been able to generate sufficient income for funding its expenses.

Revenue Ratios

- An easy way to start analyzing financial statements using ratios is to determine how diversified your funding base is or how reliant you are on one or two types of income.

- Four revenue sources are analyzed in order to establish what proportion each of these revenue streams contributes to the organization's total revenues. These sources are:

  1. Sales Revenue
  2. Grant Income
  3. Interest Income
  4. Other Income

- Simply divide each identified income source by the total income to determine the percentage of income each source provides

Revenue Ratio: Summary

Ratio	2011/12	2010/11	Trend
Sales	46.49%	50.30%	↓
Grant Income	42.22%	40.59%	↑
Interest Income	10.75%	9.40%	↑
Other Income	0.53%	(0.0029)%	↑

BREAK-EVEN ANALYSIS

What is BEP Analysis?

- Determines the point at which **revenue received equals the costs associated.**
- This analysis calculates what is known as a margin of safety, the amount that **revenues exceed the break-even point**.
- Calculation

- BEP in Sales Units:

px = vx + FC + Profit Where,
px = vx + FC + 0 (i.e. BEP without any profit)
Break-even Sales Units = x =FC/(p – v)

p is the price per unit,
x is the number of units,
v is variable cost per unit
FC is total fixed cost
(p-v) is contribution

- BEP in Sales Rupees

Break-even Sales Rupees= Price per Unit × Break-even Sales Units

Questions

Interpreting and Analyzing Financial Statements

Nepal CRS Company

Presented By:

T R Upadhya & Co.

Chartered Accountants

Training Schedule : DAY 4

Session	Time	Topics
I	9:00 to 9:30 9.30 to 10.00 10:00 to 11:00	What is Budgeting? Budget Methods Type of Budget
	11:00 to 11:10	Tea Break
II	11:10 to 12:00 12:00 to 13:00	Cash Budget Budget Variance Analysis
	13:00 to 13:45	Lunch
III	13:45 to 15:30	What is overhead, direct cost and IC
	15:30 to 15:40	Tea Break
IV	15:40 to 16:15 16.15 to 16.45 16:45 to 17:00 17:00 to 17:30	Allocation of costs Effect of different allocation bases Concept and meaning of cost reduction Summary for the day

Budget &
Variance Analysis

Definition

Budget

A budget is a document that forecasts the financial results and financial position of a organization for one or more future periods.

It is plan of action based on forecasted transactions, activities, and events.

Budgeting

Is the process of identifying, gathering, summarizing, and communicating financial and nonfinancial information about an organization's future activities.

Budget Objective:

Coordination

- Coordinate inputs and outputs in order to ensure balance of efforts and effects

Communication

- Communicate plans and to control information

Motivation

- Motivate managers to achieve objectives and thereby establish control within the organization

Authorization

- Used to authorize expenditure

Budget: Kinds

Fixed

- Appropriations are for specific amounts of expenditures
- Appropriated amount may not be exceeded
- Limit flexibility

Flexible

- Typically fixed per unit of goods or services but vary in total based on demand for goods or services
- Rarely used

Budget Methods

Incremental Budgeting

- the process is mainly concerned with the incremental (or marginal) adjustments to the current budgeted allowance
- Incremental budgeting always begins with the budget from the last period.
- This type of budgeting often leads to wasteful spending by employees because they do not want to lose their budget.

Zero Based Budgeting

- Zero-based budgeting – unlike the incremental approach – starts from the basis that no budget lines should be carried forward from one period to the next simply because they occurred previously.
- Zero-based budgeting always begins the new budget from an established point of zero.
- This budgeting method utilizes much more detail and makes everyone accountable for their necessary expenses.

Zero-Based Budgeting

Advantages

- allows questioning of the inherited position and challenge to the status quo;
- focuses the budget closely on objectives and outcomes; and,
- can be adaptive to changes in circumstances and priorities;

Disadvantages

- more time consuming than incremental budgeting (i.e. it may become overly bureaucratic and produce excessive paperwork);
- need for specialized skills/training; and,
- questioning of the inherited position can be seen as threatening to organizations and their people (so careful management of the people element is essential);

Incremental Budgeting

Advantages

- easily understood (as it is retrospective), makes marginal changes and secures agreement through negotiation;
- administratively straightforward (and therefore cheap); and,
- particularly useful where outputs are difficult to define/quantify

Disadvantages:

- backward looking – focus more on previous budget than future operational requirements and objectives;
- does not allow for overall performance overview; and,
- tends to be reactive rather than proactive;

Budget: Types

- Master Budget
- Operating and Financial Budget
- Cash Budget
- Expense Budget
- Capital Expenditure Budget
- Continuous Budget

Master Budget

- A master budget is a **set of interconnected budgets** of sales, production costs, purchases, incomes, etc.
- A master budget serves as planning and control tool to the management since they can plan the business activities during the period on the basis of master budget.

Components of Master Budget:

Operational Budget

Financial Budget

Operational & Financial Budget

Operational Budget:

- Sales Budget ; Production Budget; Direct Material Purchases Budget ; Direct Labor Budget ; Overhead Budget; Selling and Administrative Expenses Budget; Cost of Goods Manufactured Budget

Financial Budget:

- Schedule of Expected Cash Receipts from Customers; Schedule of Expected Cash Payments to Suppliers; Cash Budget; Budgeted Income Statement; Budgeted Balance Sheet

Cash Budget:

For cash planning and control

Expected cash inflow and outflow for designated period.

Consists of 4 major sections:

- **Receipts:** beginning cash balance, cash collections from customers, and other receipts.
- **Disbursement:** comprised of all cash payments
- **Cash surplus or deficit:** difference between cash receipts and cash payments
- **Financing:** detailed account of the borrowings and repayments expected during period

Expense Budget :

Most commonly used

Four steps in preparing expense budgets

- **Determine** relevant range over which activity is expected
- **Analyze costs** that will be incurred over relevant range to **determine cost behavior patterns** (variable, fixed, mixed)
- Separate costs by **behavior**
- Using formula for **variable portion** of costs, prepare budget showing what costs will be incurred at various points throughout relevant range

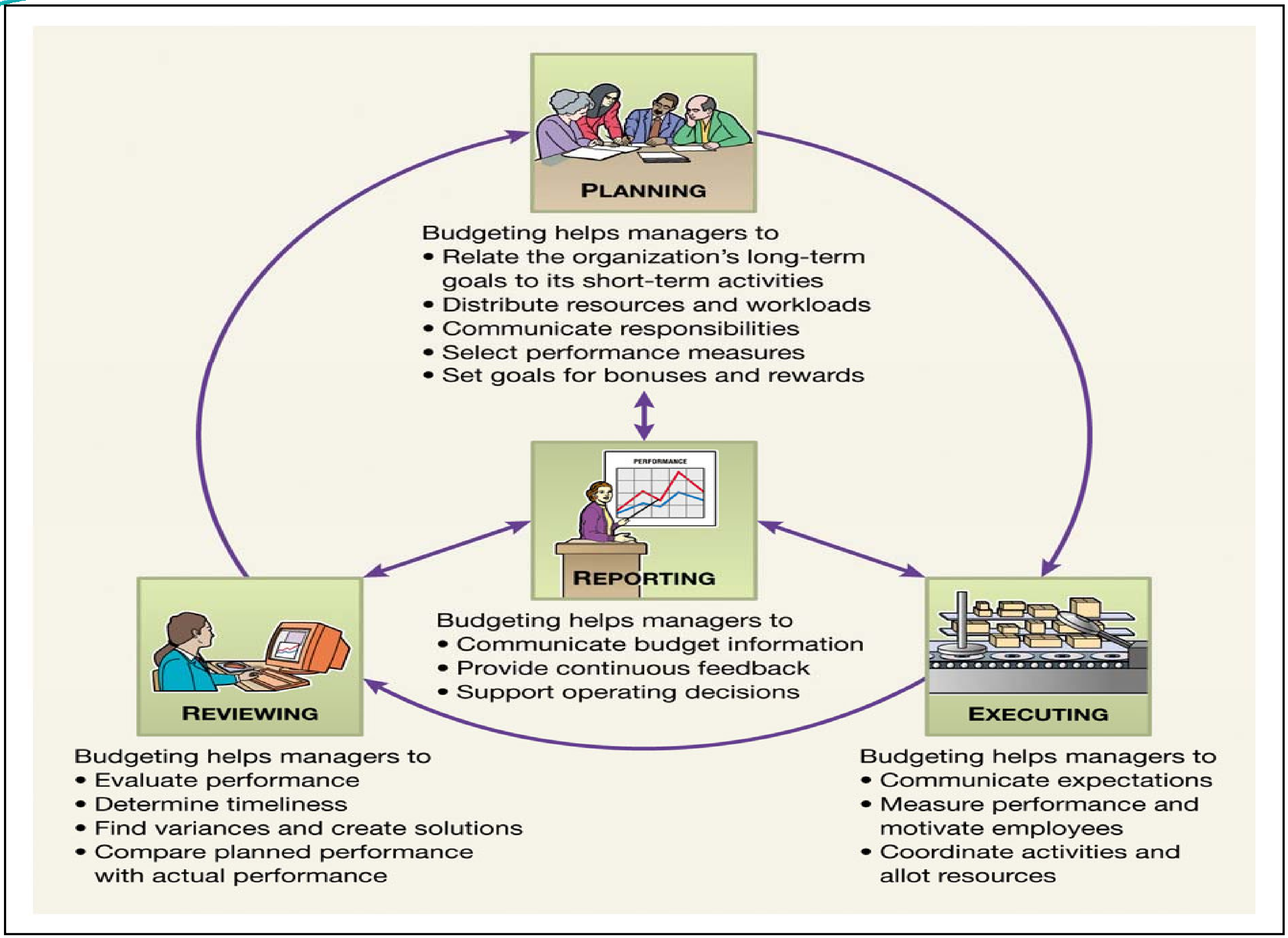
Capital Expenditure Budget :

- The capital expenditures budget identifies the amount of cash a company will invest in projects and long-term assets.

Continuous Budget :

- Continuous budgeting is the process of continually adding one more month to the end of a multi-period budget as each month goes by. This approach has the advantage of having someone constantly attend to the budget model and revise budget assumptions for the last incremental period of the budget

Budgeting Process



More on Planning

Identify all action steps needed to:

- Organize
- Carry Out
- Evaluate

Identifying:

- Personnel Costs
- Other than personal Costs

More on Planning

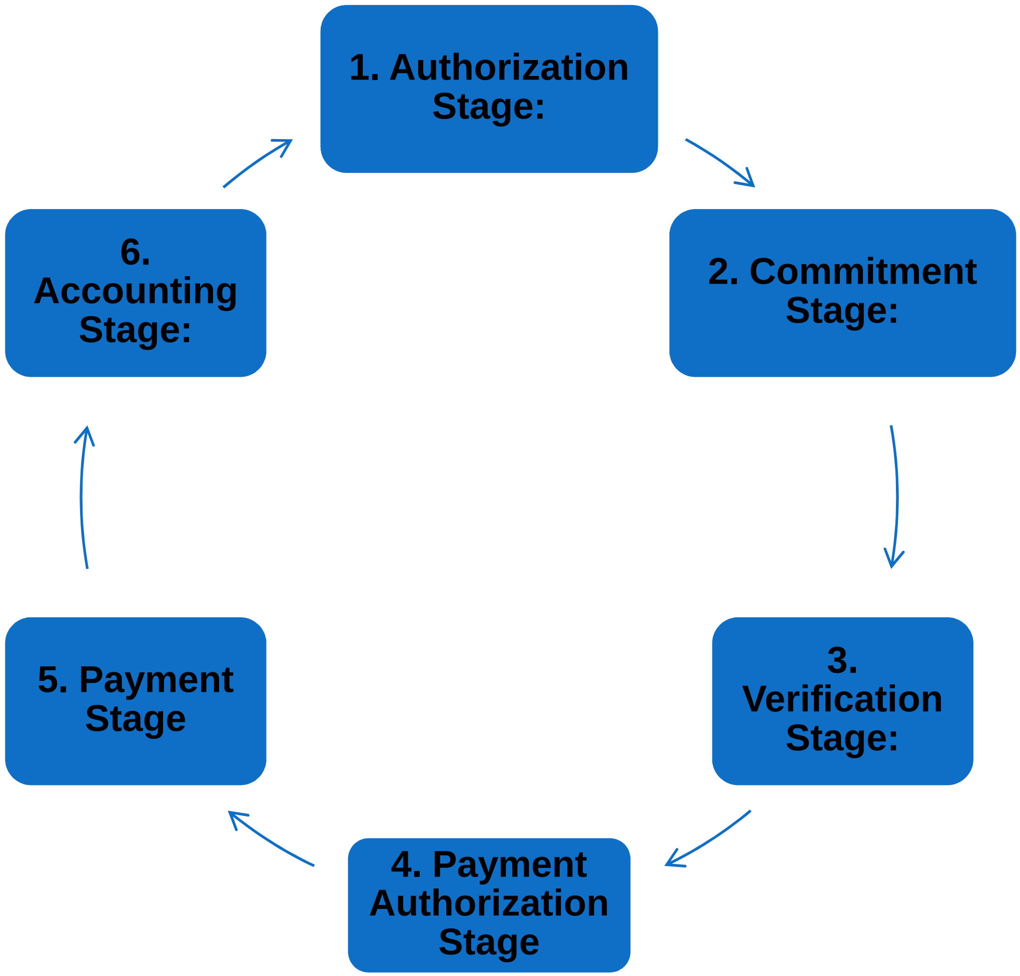
Determine Costs:

- Use past experience
- Use recent budgets
- Catalog list prices for items and services
- Ask vendors to supply cost quotations

Explain/Justify :

- What you are going to spend money on;
- How you arrived at the total figure for a specific line item;
- How each line item will be used

More on Executing



More on Reporting

- Budget Vs Actual with justifications.
- Comparative Analysis with the Corresponding period with justifications.
- Frequency: Monthly/Quarterly/Semi annually

More on Reviewing

Budgetary Control

The comparison of actual results with those budgeted

- Budget Review: Semi Annually
- Budget Revisions and its Approval
- Realignment: Limits
- Revised Budget

More on Variance Analysis

- Every variance should stimulate questions.
- Why did one object/ activity cost more or less?
- Were business objectives met?
- Is a positive variance a cost saving or a failure to implement?
- Is a negative variance a change in plans, a management failure, or an unrealistic budget?
- Correlation between the revenue and the expense variance?
- **You have to track follow up on budgets, mainly through variance analysis, or the budgets are useless**

Others

- No standard format for budget preparation
- Procedures vary from organization to organization
- Only universal requirement is that budgets communicate the appropriate information to the reader in a clear and understandable manner

Who may prepare the budget:

- Someone knowledgeable of the project and organization
- Budget creation should **be a collaborative effort**

Few Practical issues

- Expenses to be Incurred: not Budgeted
- Inter head transfer of budget
- Limit of acceptable variation from the budget

Overhead and Cost

What is Overhead?

A **cost or expense** (such as for administration, insurance, rent, and utility charges) that

1) relates to an operation or the company as a whole,

2) does not become an integral part of a goods or service (unlike raw material or direct labor) and

3) cannot be applied or traced to any specific unit of output.

Overheads are **indirect costs**.

Definition

DIRECT COST

- Direct costs are operating costs that is directly attributable to the specific product or activity.
- Traced to products on an item-by-item basis.

Eg. *Cost of products (CIF); Packaging/ repackaging/ labor cost ; Promotion and advertisement (Brand Specific); Sub contract (NFCC partnership)*

Definition (Cont.)

INDIRECT COST

- Costs not directly attributable to the specific product or activity.
- Allocated to a range of products on some basis.
- Do not vary substantially within certain production volumes or other indicators of activity

Eg. *Depreciation; Management Cost; Other advertisement and promotional cost; Rent; Utilities / Communication Cost; Transport cost and vehicle insurance; Office Supplies Furniture and Equipment Cost*

Cost Allocation :

Definition

- Process of identifying, aggregating, and assigning costs to **cost objects**.

What is a Cost Object ?

- A cost object is any activity or item for which the organization want to separately measure costs.
- Eg. product, a project, a customer, a sales region, and a department.

Cost Allocation (Cont.)

Methods of cost allocation:

- **Direct Method** : This method allocates all the **service department** (eg. Human Resource Department) costs to the production department and does not take into account that the service department offers services to other departments.

- **Step Down Method** : The step down method ranks the service departments in terms of service importance, then the cost of service department is also allocated the costs to the other departments.

I. Purposes of Cost Allocation

A. To Provide Information for Decision Making
B. To Reduce Frivolous Use of Common Resources
C. To Encourage Evaluation of Services
D. To Provide "Full" Cost Information

A. To Provide Information for Decision Making

From a decision making standpoint, the allocated cost should measure the opportunity cost of using a company resource.

- The opportunity cost of a choice is the value of the best alternative forgone.

B. To Reduce Frivolous Use of Common Costs

By not allocating costs, resources may appear "free" to users. However, resources never come with zero costs.

C. To Encourage Evaluation of Services

Users of services should consider the possibility of lower cost alternative. This is unlikely to be considered if costs are not allocated to the user.

D. To Provide "Full" Cost Information

- GAAP requires full-costing for external reporting purposes.
- In the long run, all costs must be covered.

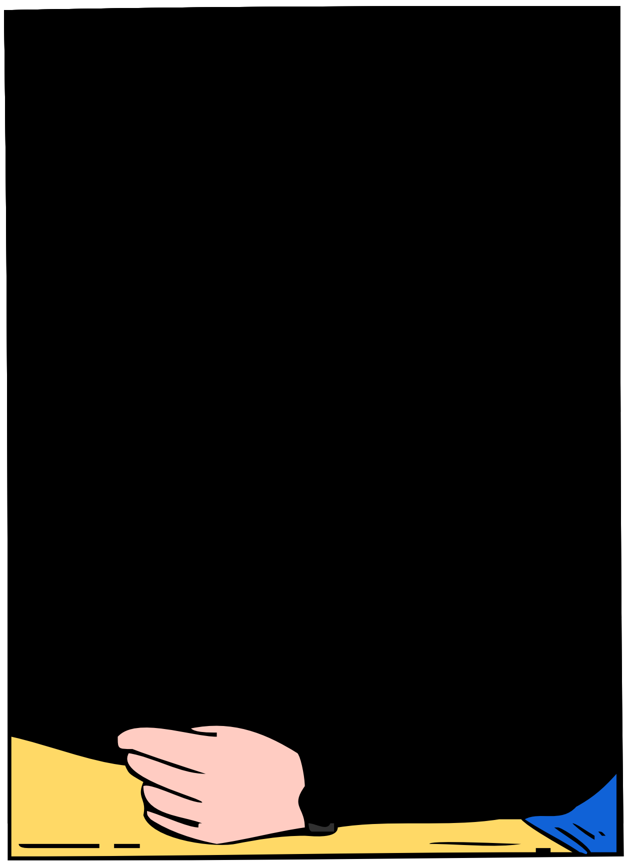
II. The Process of Cost Allocation

A. The Steps of Cost Allocation
B. Arbitrary Approaches to Cost Allocation
C. Allocating Service Department Costs
D. Problems with Cost Allocation

A. The Steps of Cost Allocation

1. Determine the Cost Objective (Cost Object).
2. Form Cost Pools
3. Select an Allocation Base to Relate the Cost Pools to Cost Objects

1. Identifying the Cost Objective (Cost Object)



Determine the product, service, department, etc., that is to receive the allocation.

2. Form Cost Pools

A cost pool is a grouping of individual costs, the sum of which is allocated using a single allocation base.

Cost pools include:

- Departments (i.e., maintenance or personnel departments)
- Major Activities (i.e., equipment setups)

3. Select an Allocation Base to Relate the Cost Pools to Cost Objects

- It is very important that the allocation base relates the cost pool to the cost object.
- Allocation should be based on a cause and effect relationship between costs and cost objects.
- If cause and effect cannot be established, other approaches are used.

B. Arbitrary Approaches to Cost Allocation

- Relative benefits approach – cost should be allocated in accordance with the cost objects that benefit the most from the cost.
- Ability to bear costs – cost should be allocated to cost objects in proportion to profitability.
- Equity approach – allocate costs in a method that is perceived to be fair and equitable.

C. Allocating Service Department Costs

- Manufacturing areas are often organized by (1) production departments directly involved in the manufacturing process, and (2) service departments that provide assistance to production departments.
- In order to avoid passing on inefficient cost control of service departments to production departments, budgeted rather than actual service department costs should be allocated to production departments.

D. Problems with Cost Allocation

- Managers may be evaluated on the basis of costs beyond their control.
- Allocations of fixed costs make them appear as variable.
- Use of only volume related allocation bases are inappropriate for costs that are not affected by volume. This can result in low volume items being allocated low cost, while high volume items being allocated high cost.

III. Activity Based Costing (ABC)

A. The ABC Approach
B. Pros and Cons of ABC
C. Activity Based Management (ABM)
D. An Illustration of ABC

A. The ABC Approach

- Identify the major activities that cause overhead costs to be incurred.
- Group costs of activities into cost pools.
- Identify measures (allocation bases) of activities (the cost driver).
- Relate costs to products using the cost drivers.

B. Pros and Cons of ABC

Pros

- Greater costing accuracy is the primary benefit of activity-based costing. Companies assign cost only to the products that require the activity for production. This method eliminates allocating irrelevant costs to a product.
- Other advantages of activity-based costing include an easy interpretation of cost for internal management, the ability to enable benchmarking and a greater understanding of overhead costs.
- ABC leads to improvements in cost control.

Cons

- ABC can be expensive and time consuming since data regarding numerous allocation bases must be collected.
- Also it is not possible to divide some overhead costs such as the chief executive's salary on a per-product usage basis.

C. Activity Based Management (ABM)

- Determine major activities
- Identify resources used by each activity (cost gathering)
- Evaluate the performance of the activity (benchmark against similar activities at other places)
- Identify ways to improve the efficiency and/or effectiveness of the activities (compare to best practices at other places)

D. An Illustration of ABC

A Traditional Overhead Calculation

ABC Co. manufactures 85,000 units of a Spade and 800 units of a Mower. The company currently uses direct-labor cost to assign overhead costs to products. The company estimates that it will incur Rs 40,000,000 in manufacturing overhead and estimates that labor cost will be Rs 8,000,000. Compute the predetermined overhead rate.

$$\frac{\mathbf{40{,}000{,}000}}{\mathbf{8{,}000{,}000}} = \textbf{Rs 5 per labor}$$

A Spade uses Rs 1.08 direct-labor cost per unit while a Mower uses Rs 15.00 direct-labor cost per unit. Use the following information to compute each product's total unit cost:

Spade		**Mower**	
Direct materials	Rs 1.80	Direct materials	Rs 60.00
Direct labor	Rs 1.08	Direct labor	Rs 15.00
Mfg. Overhead		**Mfg. Overhead**	
1.08 DL Rs x Rs 5 =	**Rs 5.40**	15 DL Rs x Rs 5 =	**Rs 75.00**
	Rs 8.28		Rs150.00

Combining Activity Cost Pools

- Unit-level activities – Performed each time a unit is produced. Eg. Machine power.
- Batch-level activities – Performed each time a batch is produced. Eg. Setup costs.
- Product-level activities – Relates to a certain product regardless of runs or batches. Eg. Product design
- Organization-sustaining activities – Activities independent of customers or products. Eg. Providing a computer network.

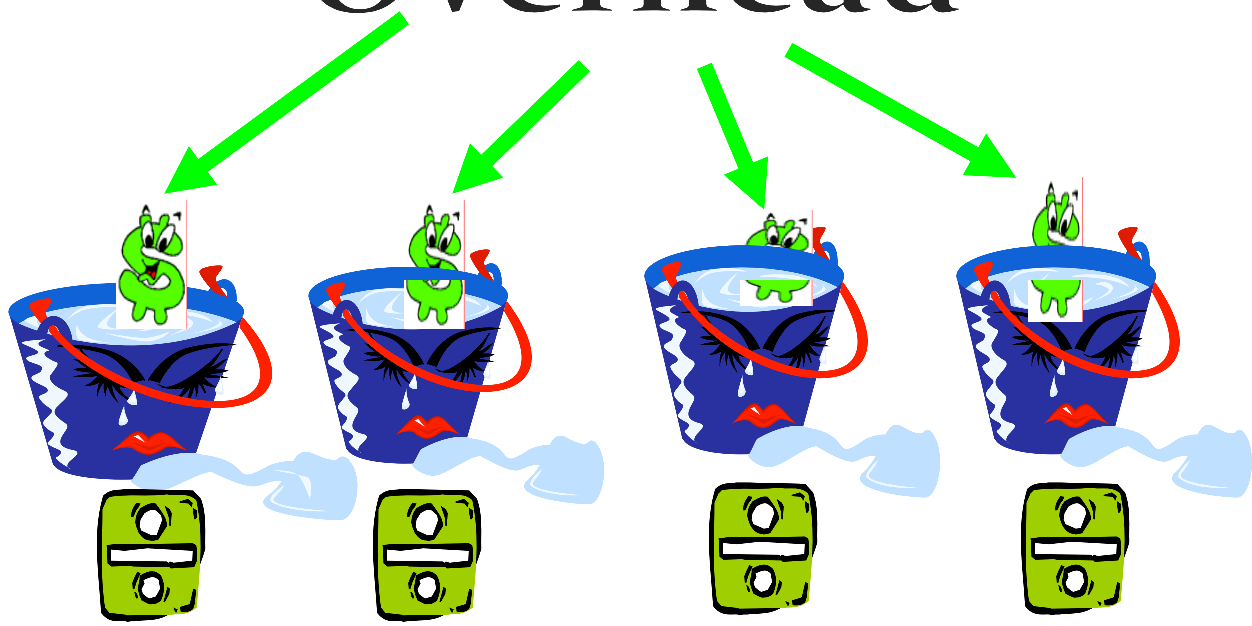
Expand the number of indirect-cost pools until each of these pools is homogeneous.

Overhead

Cost Pools

Identify the preferred cost-allocation base (cost driver) for each indirect cost pool.

Overhead



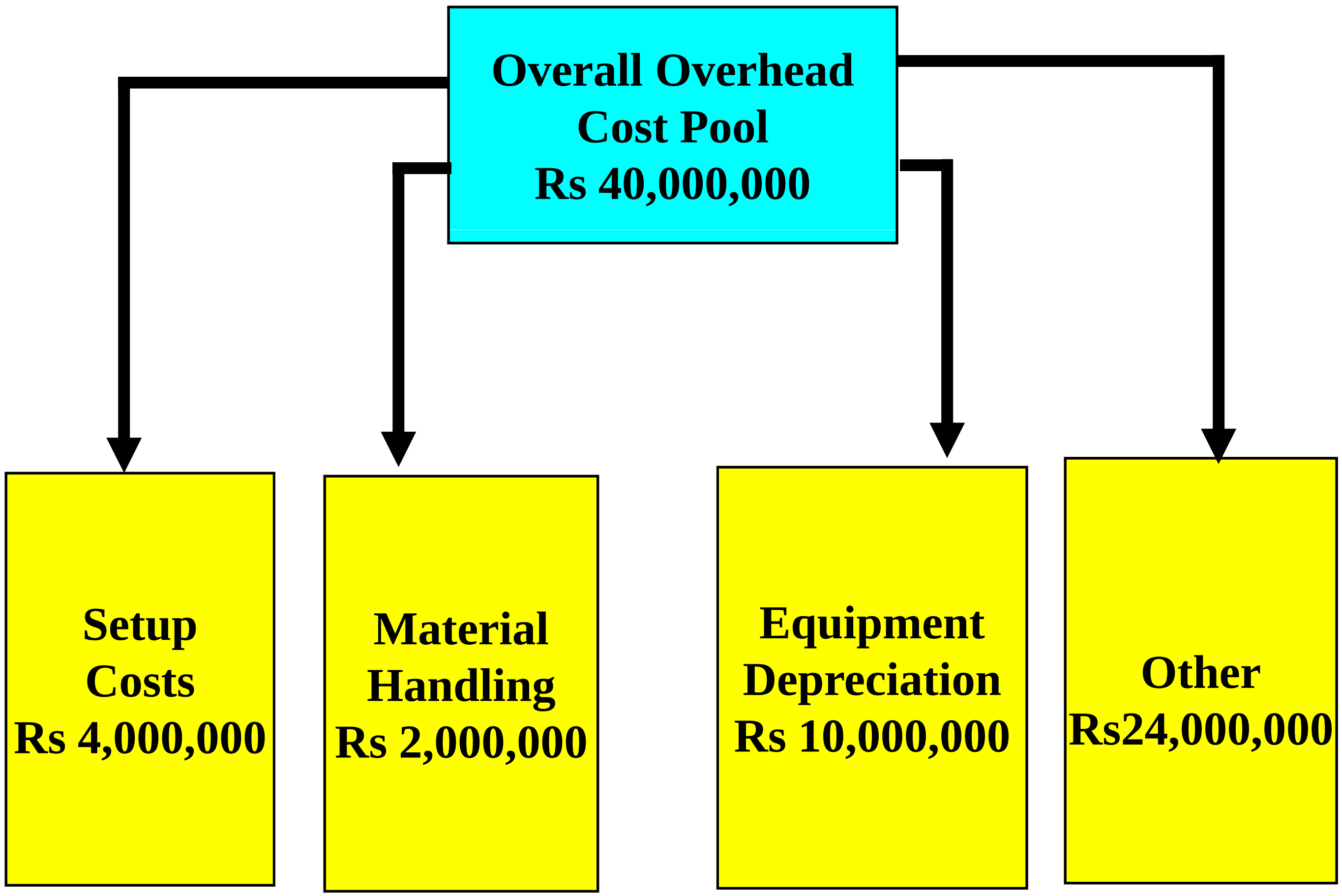
Number of Setups

Number of Material Requisitions

Number of Machine Hours

Number of Workstations Used

The First Stage Allocation



Manufacturing Activities

Activity Center	Per Annual Total	**85000 units** Spades	**800 units** Mowers
Number of setups	1,000	2	5
Number of requisitions	2,000	3	50
Number of machine hrs.	20,000	40	100
Number of workstations	3,000	1	15

The Second Stage Allocation - **Spades**

Machine Setups	Material Req.	Machine Hours	Work-stations
4,000,000/ 1,000	2,000,000/2,000	10,000,000/ 20,000	24,000,000/3,000
=Rs 4,000	=Rs 1,000	=Rs 500	=Rs 8,000

Rs 4,000	Rs 1,000	Rs 500	Rs 8,000
x 2	x 3	x 40	x 1
Rs 8,000	Rs 3,000	Rs 20,000	Rs 8,000

Rs39,000

Rs 39,000 / 85,000 units = 0.46 per unit

The Second Stage Allocation - **Mowers**

Machine Setups	Material Req.	Machine Hours	Work-stations
4,000,000/1,000 =Rs 4,000	2,000,000/2,000 =Rs 1,000	10,000,000/20,000 =Rs 500	24,000,000/3,000 =Rs 8,000
Rs 4,000 x 5	Rs 1,000 x 50	Rs 500 x 100	Rs 8,000 x 15
Rs 20,000	Rs 50,000	Rs 50,000	Rs 120,000

Rs240,000

Rs 240,000 / 800 units = Rs 300 per unit

Product Unit Cost Comparison

Traditional Costing

Spade (85,000 units)	
Direct materials	Rs 1.80
Direct labor	Rs 1.08
Mfg overhead	Rs 5.40
Unit cost	**Rs 8.28**

Mower (800 units)	
Direct materials	Rs 60.00
Direct labor	Rs 15.00
Mfg overhead	Rs 75.00
Unit cost	**Rs 150.00**

Activity-Based Costing

Spade (85,000 units)	
Direct materials	Rs 1.80
Direct labor	Rs 1.08
Mfg overhead	Rs 0.46
Unit cost	**Rs 3.34**

Mower (800 units)	
Direct materials	Rs 60.00
Direct labor	Rs 15.00
Mfg overhead	Rs 300.00
Unit cost	**Rs 375.00**

Diff of Rs 4.94

Diff of Rs 225

What is Cost Reduction

- Aim of cost reduction is to see whether there is any possibility of bringing about a saving in the costs incurred on materials, labor, overheads etc
- Directed toward specific efforts to reduce costs by improving methods, work arrangements and products.

Cost reduction is possible through the following improvements:

- In different areas and stages of production, storing and distribution process by applying more advanced and scientific techniques of operation.
- Obtaining more outputs from the same inputs and facilities.
- Using a lesser quantity of inputs to obtain the same output - e.g. printer at different department vs central printer.
- Improving the location and layout of plant, warehouse and other resources.
- Follow the procurement process of economic, efficiency and effectiveness
- Employee behavior to educate to minimize wasteful cost – proper planning, communication, training etc

Cost cutting techniques

1. Just-In-Time (JIT) System
2. Target Costing
3.Activity Based Management (ABM)
4.Life Cycle Costing
5. Kaizen Costing
6.Business Process-re-engineering
7.Total Quality Management (TQM)
8. Value chain
9. Bench Marketing
10. Management Audits

Cost cutting techniques (Cont.)

1. Just-In-Time (JIT) System

- The main aim of JIT is to produce the required items, at the required quality and quantity, at the precise time they are required.
- JIT purchasing requires for the items where too much carrying costs associated with holding high inventory levels.
- Purchasing system reduces the investment in inventories because of frequent order of small quantities.

2. Target Costing

- Target costing refers to the design of product, and the processes used to produce it, so that ultimately the product can be manufactured at a cost that will enable the firm to make profit when the product is sold at an estimated market-driven price.
- This estimated price is called target price.

Cost cutting techniques (Cont.)

3.Activity Based Management (ABM)

- ABM is the use of activity based costing to improve operations and to eliminate non-value added cost.
- The main goal of ABM is to identify and eliminate non-value added activities and costs.

4.Life Cycle Costing

- Life cycle costing estimates and accumulates costs over a product's entire life cycle in order to determine whether the profits earned during the manufacturing phase will cover the costs incurred during the pre-and-post manufacturing stage.

Cost cutting techniques (Cont.)

5. Kaizen Costing

- Kaizen costing is the process of cost reduction during the manufacturing phase of an existing product.
- The Japanese word 'Kaizen' refers to continual and gradual improvement through small activities, rather than large or radical improvement through innovation or large investment technology.

6.Business Process-re-engineering

- Re-engineering is a complete redesign of process with an emphasis on finding creative new ways to accomplish an objective.
- The aim of business process re-engineering is to improve the key business process in an organization by focusing on simplification, cost reduction, improved quality and enhanced customer satisfaction.

Cost cutting techniques (Cont.)

7.Total Quality Management (TQM)

- Under the TQM approach, all business functions are involved in a process of continuous quality improvement.

8. Value chain

- The value chain is the linked set of value creating activities all the way from basic raw materials sources, component suppliers, to the ultimate end-use product or service delivered to the customer and its analysis for achieving cost effectiveness.

Cost cutting techniques (Cont.)

9. Bench Marketing

- Bench marketing is a continual search for the most effective method of accomplishing a task.
- Comparing the existing methods and performance levels with those of other organizations or other sub-units within the same organization.

10. Management Audits

- Also known as performance audits, can be used to facilitate cost reduction in both profit and non-profit organizations.
- Help management to do a better job by identifying waste and inefficiency and recommending a corrective action.

Questions