

Analysis and Interpretation of Financial statements

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Why do we study Vertical Form..

- Horizontal Form caters more to the owner of the firm rather than the lenders or potential investors.
- It is feasible and makes it easier to understand the financial situation at a glance.
- Vertical form is allowed in case of Companies.
- Classifies expenses in different subheads.

Vertical Income Statement Format

Vertical Income Statement for the year ended _____

Particulars	Rs.	Rs.	Rs.
1. Sales(Net)			XXX
2. Less: Cost of Goods Sold			
Opening Stock		XXX	
Add: Purchases		XXX	
Add: Direct Expenses		XXX	
Less: Closing Stock		(XXX)	
Less: Sale of Scrap		(XXX)	
(2)			XXX
3. Gross Profit [(1) – (2)]			XXX
4. Less: Operating Expenses			
a. Administrative Expenses		XXX	
b. Selling and Distribution Expenses		XXX	
c. Finance Expenses		XXX	
(4)			XXX

5. Operating Profit [(3) – (4)]			XXX
6. Add: Non-Operating Incomes			XXX
7. Less: Non- Operating Expenses			(XXX)
8. Net Profit Before Interest and Tax (NPBIT) [(5) + (6) – (7)]			XXX
9. Less: Interest			(XXX)
10. Net Profit Before Tax (NPBT) [(8 - 9)]			XXX
11. Less: Tax			(XXX)
12. Net Profit After Tax (NPAT) [(10 - 11)]			XXX
13. Less: Preference Dividend			(XXX)
14. Net Profit/(Loss) for Equity Shareholders in the Current Year [(12 - 13)]			XXX
15. Net Profit/(Loss) for Previous Years			XXX
16. Retained Earnings [(14) + (15)]			XXX

Income Statement

- | | |
|--------------------------|---|
| 1. Net Sales | : Total Sales – Returns |
| 2. Cost of Goods Sold | : Opening Stock + Purchases + Direct Expenses – Closing Stock |
| 3. Gross Profit | : Sales – Cost of goods sold |
| 4. Operating Expenses | : Adm. Exp. + Selling Exp. + Finance Expenses |
| 5. Operating Profit | : Gross Profit – Operating Expenses |
| 6. Net Profit before tax | : Net Operating Profit + Non Operating Income |
| 7. Net Profit after tax | : N.P. before tax – Tax |
| 8. Retained earning | : N.P. after tax – Dividend |

Some important definitions related to **Income Statement**:

- An **Operating Expense** is an expense a business incurs through its normal business operations. Operating expenses include rent, equipment, inventory costs marketing, payroll, insurance etc
- **Non-operating income** is gains or losses from sources not related to the typical activities of the business .Non-operating income can include gains or losses from investments, property or asset sales etc.

- **Non-operating expenses** are the expenses incurred by a business which are outside of its main or central operations. Non-operating expenses are also described as incidental .
- **Retained earnings** refer to the net earnings not paid out as dividends, but retained by the company to be reinvested in its core business, or to pay debt.

Balance Sheet- Vertical Format

Balance Sheet as on _____

Particulars	Rs.	Rs.	Rs.
I. Sources of Funds			
A. Owned Funds			
a. Equity Share Capital		XXX	
b. Preference Share Capital		XXX	
c. Reserves and Surplus (P&L A/c Cr. Bal, General Reserve, Securities Premium and all other Reserves)	XXX		
Less: P&L A/c Dr. Bal	XXX		
Less: Fictitious Assets	XXX	XXX	
A. Owned Funds(a+b+c)			XXX
B. Borrowed Funds(Bonds, Debentures etc.)			XXX
Capital Employed (A+B)			XXX

Particulars	Rs.	Rs.	Rs.
II. Application of Funds			
A. Fixed Assets			
a. Gross Block		XXX	
b. Less: Depreciation		XXX	
c. Net Block			XXX
B. Long Term Investments			XXX
C. Working Capital			
i. Current Assets(including Quick Assets)		XXX	
ii. Current Liabilities(including Quick Liabilities)		XXX	
(C) = (i) – (ii)			XXX
Capital Employed (A+B+C)			XXX

Some important definitions related to Balance Sheet

- **Owner's Fund:** This represents the **capital** theoretically available for distribution to shareholders. **Owner's Fund**, also called **owner's equity**, is the account that shows the owners' stake in the business.
- **Tangible Assets:** **Tangible assets** include both fixed **assets**, such as machinery, buildings and land, and current **assets**, such as inventory. Any Asset which can be seen and touched is termed as tangible asset.

- Nonphysical assets , which cannot be touched, such as patents, trademarks, copyrights, goodwill and brand recognition are all examples of **Intangible assets**.
- **Long term Investments:** A long-term investment is an account on the asset side of a company's balance sheet that represents the company's investments, including stocks, bonds, real estate that it intends to hold for more than a year.
- **Loan Funds:** All the funds that have been procured from external sources.

Example:

Q: Rearrange the following in the form suitable for financial analysis.

Particulars	Amount (₹) (in '000)	Particulars	Amount (₹) (in '000)
Sales	16,000	Equity share capital	5,000
Raw materials consumed	7,800	Profit and loss account	1,500
Consumables	800	Bank loans	12,000
Direct labour	750	Short-term loans	1,500
Other direct expenses	480	Trade creditors	3,350
Administrative expenses	1,200	Trade investments	400
Selling expenses	260	Inventories	6,000
Interest	1,440	Receivables	3,700
Machinery	14,000	Cash in hand and at bank	100
Income tax 50%		Outstanding expenses	650
Depreciation	700	Other current liabilities	200

Income Statement for the year ending on....

No.	Particular	Amount	
1.	Sales		16000
2.	<i>Less: Cost of goods sold</i>		
	<i>Raw material consumed</i>	7800	
	<i>Consumables</i>	800	
	<i>Direct Labor</i>	750	
	<i>Other Direct Expenses</i>	<u>480</u>	<u>9830</u>
3.	Gross Profit (1-2)		6170
4.	<i>Less: Operating Expenses</i>		
	<i>Administrative Expenses</i>	1200	
	<i>Selling Expenses</i>	260	
	<i>Depreciation</i>	700	<u>2160</u>
5.	Profit Before Interest and Tax(3-4)		4010
6.	<i>Less: Interest</i>		<u>1440</u>
7.	Net profit before Tax		2570
8.	<i>Less : Income Tax@50%</i>		<u>1285</u>
9.	Net Profit After Tax		1285

Balance sheets as on....

No.	Particular	Amount	
1.	Share Capital	5000	
2.	Reserve and Surplus	<u>1500</u>	
3.	Own fund(1+2)		6500
4.	Long term loans	12000	
5.	Short term loans	<u>1500</u>	
6.	Loan funds(4+5)		<u>13500</u>
7.	Total funds Available(3+6)		<u>20000</u>
8.	Fixed Assets		14000
9.	Investment		400
10.	Current Assets	6000	
	Inventories	3700	
	Receivables	<u>100</u>	
	Cash and Bank	<u>9800</u>	
11.	Less: current liabilities		
	Trade creditors	<u>3350</u>	

No.	Particular	Amount	
	Provisions	650	
	Other	<u>200</u>	
		<u>4200</u>	
12.	Working capital (10-11)		<u>5600</u>
13.	Total Funds Employed		20000

**Practical Questions Answers from previous
years papers of Mumbai University**

Illus 1)

Net Block & Depreciation given

(March, 2009)

1. The following figures are related to the Sohan Ltd. for the year ended 31st December 2008.

Particulars	Rs.	Particulars	Rs.
Sales	24,00,000	Staff Salaries	40,000
Net Block	10,00,000	Advertisement Expenses	60,000
Bills Receivable	4,00,000	Warehouse Rent	30,000
Bills Payable	2,00,000	Depreciation on Plant	50,000
Cash Balance	85,000	Interest on Overdraft	30,000
Bank Overdraft	2,00,000	Share Capital	8,00,000
Purchases	18,00,000	Reserves (1-01-08)	3,65,000
Other Administrative Exp.	40,000	Stock (1-01-08)	3,60,000
Legal Charges (paid)	30,000	Lap Top Repairs	25,000
		Direct Expenses	15,000

Other Information :

- Make a provision for Income Tax of Rs. 2,40,000.
- Provide final dividend Rs. 80,000.
- Closing stock on 31-12-08 is Rs. 4,00,000.

You are required to prepare Balance Sheet and Income Statement in vertical form suitable for are Balance Sheet and Income Statement in vertical form suitable for analysis for the year ended 31st December, 2008.

Solution :

Income Statement for the year ended 31st December, 2008

	Rs.	Rs.
Sales		24,00,000
Less : Cost of Goods Sold		
Opening Stock	3,60,000	
+ Purchases	18,00,000	
	21,60,000	
- Closing Stock	4,00,000	
	17,60,000	
Direct Expenses	15,000	
		17,75,000
Gross Profit		6,25,000
Less : Administrative Expenses		
Legal Charges	40,000	
Staff Salaries	30,000	
Lap Top Repairs	40,000	
Advertising	25,000	
Warehouse Rent	60,000	
Depreciation of Plant	30,000	
Net Profit before Interest	50,000	2,75,000
Less : Interest on Overdraft		3,50,000
Net Profit before Tax		30,000
Less : Income Tax		3,20,000
Net Profit after Tax		2,40,000
		80,000

Balance Sheet
as on 31st December, 2008

	Rs.	Rs.
SOURCES OF FUND		
Shareholder's Fund		
Share Capital	8,00,000	
Reserves	<u>3,65,000</u>	
		<u>11,65,000</u>
Total		<u>11,65,000</u>
APPLICATIONS OF FUND		
Fixed Assets		
Net Block		10,00,000
Current Assets		
Bill Receivable	4,00,000	
Closing Stock	4,00,000	
Cash	<u>85,000</u>	
	(a)	<u>8,85,000</u>
Less : Current Liabilities		
Bills Payable	2,00,000	
Bank Overdraft	2,00,000	
Provision for Tax	2,40,000	
Provision for Dividend	<u>80,000</u>	
	(b)	<u>7,20,000</u>
Net Current Assets (a-b)		<u>1,65,000</u>
Total		<u>11,65,000</u>

III (2)

Following are the balances as on 31-3-2014 in the books of accounts of Ratnagiri Mango Products Ltd. You are required to prepare a Vertical Balance Sheet for financial analysis from the same.

Particulars	₹
TDS (Staff Salaries)	25,000
Share Issue Expenses	20,000
Land and Building	5,00,000
10% Debentures	3,00,000
Trade Investment	2,00,000
Creditors	8,80,000
Plant and Machinery	3,70,000
Calls in arrears	10,000
Profit and Loss A/c (Cr. Balance)	3,85,000
Patents	50,000
Stock	4,35,000
Debtors	9,25,000
Equity Share Capital	5,00,000
Bank Overdraft	4,20,000

Solution :

(Mar. 2011, adapted)

Ratnagiri Mango Products Ltd.

Vertical Balance Sheet as on 31st March, 2014

No.	Particulars	₹	₹	₹	₹
I.	SOURCES OF FUNDS				
1.	Owner's Funds				
A.	Capital				
	Equity Share Capital		5,00,000		
	Less : Calls-in-arrears		<u>(10,000)</u>		
	Capital			4,90,000	
B.	Reserves and Surplus				
	Profit and Loss A/c - Cr. Balance		3,85,000		
	Less : Fictitious Assets				
	Share Issue Expenses		<u>(20,000)</u>		
	Net Reserves and Surplus			<u>3,65,000</u>	
	<i>Own Funds or Net Worth</i>				8,55,000
2.	Loan Funds				
	10% Debentures				3,00,000
3.	Capital Employed				<u>11,55,000</u>
II.	APPLICATION OF FUNDS				
1.	Fixed Assets				
A.	Tangible				
	Land & Buildings		5,00,000		
	Plant & Machinery		<u>3,70,000</u>		
	Net Tangible Assets		<u>8,70,000</u>		
B.	Intangible				
	Patents		<u>50,000</u>		9,20,000
2.	Long Term Investments				
	Trade Investments				2,00,000

3.	Working Capital			
(i)	Liquid Assets			
	Debtors	9,25,000		
	Other Current Assets			
		<u>4,35,000</u>		
(ii)	Inventory		13,60,000	
A.	Current Assets			
B.	Less : Current Liabilities			
	Creditors	8,80,000		
	TDS	<u>25,000</u>		
	Total Quick Liabilities		9,05,000	
	Bank Overdraft		<u>4,20,000</u>	
	Current Liabilities		<u>(13,25,000)</u>	
	Working Capital (A - B)			35,000
3.	Capital Employed			<u>11,55,000</u>

Illustr 3) The following balances appear in the books of M/s Laxman Ltd. as on 31st March, 2014. You are required to prepare a Balance Sheet in the vertical form.

Particulars	₹	Particulars	₹
Sundry Debtors	2,00,000	Creditors	1,50,000
Trade Investments	2,50,000	Capital Reserve	1,50,000
Bank Overdraft	1,00,000	Short Term Investments	50,000
Public Deposits	3,00,000	Plant and Machinery	12,00,000
Bills Payable	7,90,000	Outstanding Expenses	1,20,000
General Reserve	1,00,000	Cash and Bank	7,00,000
Bills Receivable	2,00,000	Profit and Loss A/c (Credit)	4,00,000
Vehicles	9,00,000	Stock	5,00,000
10% Preference Share Capital	8,00,000	Land and Building	12,00,000
Commission on Issue of Shares (not yet w/off)	40,000	Equity Share Capital	16,00,000
Provision for Tax	1,00,000	Preliminary Expenses (not yet w/off)	10,000
Bank Loan	3,00,000	Debentures	5,00,000
Advance Tax	3,00,000	Proposed Dividend	3,00,000
Prepaid Expenses	1,00,000	Advance to Suppliers	60,000

Solution :

(Mar. 2013, adapted)

M/s Laxman Ltd.

Vertical Balance Sheet as on 31st March, 2014

Particulars	₹	₹	₹	₹
I. SOURCES OF FUNDS				
1. Shareholder's Funds				
a. Share Capital				
Equity Share Capital	...	16,00,000		
10% Preference Share Capital	...	8,00,000	24,00,000	
b. Reserves and Surplus				
General Reserve	...	1,00,000		
Profit & Loss A/c	...	4,00,000		
Capital Reserve	...	1,50,000		
		6,50,000		
Less : Preliminary Expenses	10,000			
Commission on Shares	40,000	(50,000)	6,00,000	30,00,000
2. Loan Funds				
Debentures	...		5,00,000	
Public Deposits	...		3,00,000	

	Bank Loan	...	3,00,000	11,00,000
3.	Capital Employed	...		41,00,000
II.	APPLICATION OF FUNDS			
1.	Fixed Assets			
a.	Tangible Assets		12,00,000	
	Land and building	...	12,00,000	
	Plant & Machinery	...	9,00,000	33,00,000
	Vehicles	...		
2.	Investments			2,50,000
	Trade Investments	...		
3.	Working Capital			
a.	Current Assets			
	Sundry Debtors	...	2,00,000	
	Bills Receivables	...	2,00,000	
	Short Term Investments	...	50,000	
	Cash and Bank	...	7,00,000	
	Quick Assets	...		11,50,000
	Stock	...	5,00,000	
	Advance to Suppliers	...	60,000	
	Advance Tax	...	3,00,000	
	Prepaid Expenses	...	1,00,000	9,60,000
		...		21,10,000
b.	Less : Current Liabilities			
	Creditors	...	1,50,000	
	Outstanding Expenses	...	1,20,000	
	Bills Payable	...	7,90,000	
	Provision for Tax	...	1,00,000	
	Proposed Dividend	...	3,00,000	
	Quick Liabilities	...	14,60,000	
	Bank Overdraft	...	1,00,000	(15,60,000)
	Total Working Capital	...		5,50,000
3.	Capital Employed	...		41,00,000

Illus 4) The following balances appear in the books of M/s. Bhushan for the year ended 31st March, 2014. You are required to prepare a Revenue Statement in vertical form.

Particulars	₹	Particulars	₹
Opening Stock	50,000	Sales Return	20,000
Net Profit b/f from P.Y.	60,000	Profit on Sale of Investment	5,000
Office Rent	5,000	Loss by Fire	5,000
Carriage Inward	20,000	Closing Stock	40,000
General Reserve	75,000	Purchases	2,00,000
Wages	72,000	Postage and Telegram	5,000
Octroi	5,000	Provision for Tax	30,000
Office Staff Salaries	40,000	Sales	6,20,000
Audit Fees	20,000	Dividend on shares held	25,000
Advertisement	25,000	Carriage Outward	5,000
Finance Expenses	25,000	Warehouse Expenses	5,000
Loss on Sale of Asset	30,000	Import Duty	3,000
Depreciation			
- Plant and Machinery	15,000		
- Furniture	16,000		
- Delivery Van	14,000		

Solution :

(Mar. 2012, adapted)

M/s Bhushan

Vertical Income Statement for the Year Ended 31st March 2014

No.	Particulars	₹	₹	₹
1.	Gross Sales	...	6,20,000	
	Less : Sales Returns	...	(20,000)	
	Net Sales	...		6,00,000
2.	Less : Cost of Goods Sold			
	Opening Stock	50,000		
	Purchases	2,00,000		
	Less : Closing Stock	(40,000)	2,10,000	
	Wages		72,000	
	Carriage Inward		20,000	
	Octroi		5,000	
	Import Duty		3,000	
	Depreciation on plant		15,000	
	Total Cost of Goods Sold			3,25,000
3.	Gross Profit			2,75,000
	Less : Operating Expenses			
	A. Administrative Expense			
	Office Rent	5,000		
	Office Staff Salaries	40,000		
	Audit Fees	20,000		
	Postage and Telegram	5,000		
	Depreciation - Furniture	16,000	86,000	

B. Selling and Distribution Expenses		25,000		
	Advertisement	5,000		
	Carriage Outward	5,000		
	Warehouse Expenses	14,000	49,000	
	Depreciation - Delivery Van		<u>25,000</u>	
C. Finance Charges				1,60,000
4.	Total Operating Expenses			<u>1,15,000</u>
5.	Operating Profit			
6.	Add : Non Operating Income :			
	Profit on Sale of Investment	5,000		
	Dividends on Shares	<u>25,000</u>	30,000	
7.	Less : Non-Operating Expenses :			
	Loss on Sale of Asset	30,000		
	Loss by Fire	<u>5,000</u>	<u>(35,000)</u>	<u>(5,000)</u>
8.	Net Profit Before Tax			1,10,000
9.	Less : Income Tax			<u>(30,000)</u>
10.	Net Profit After Tax			80,000
	Add : P & L Balance b/d			<u>60,000</u>
	Profit Available for Appropriation			1,40,000
11.	Less : Appropriations			
	General Reserve			<u>(75,000)</u>
12.	Retained Profits			<u>65,000</u>

Working Note :

Finance expenses are treated as operating expenses, in absence of details.

Thank you