

MBA : Retail management , merchandising and E-commerce



5.Retail finance and accounting



Navdeep Yadav
Co-Founder [Float](#)
Product Manager |MBA|

Retail Management Finance and Accounting



Financial Statements

Financial statements are the basic and formal annual reports.

A balance sheet (Financial position)

An income statement (Profit and Loss Statement)

Cash flows Statement (Operating, financing and investing activities)

Income Statement

Balance Sheet

Cash Flow Statement

Accounts Payable	10
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Increase in Accounts Payable	10
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Income Statement

Balance Sheet

Cash Flow Statement

Revenue	-
COGS	-
Gross Margin	-
Operating Expenditure	-
EBITDA	-
Deprn. & Amort.	-
EBIT	-
Interest Expense	-
NPBT	-
Tax Expense	-
NPAT	-

Cash at Bank	10
Current Assets	10
Non-Current Assets	-
Total Assets	10
Trade Creditors	10
Current Liabilities	10
Non-Current Liabilities	-
Total Liabilities	10
Retained Earnings	-
Total Equity	-
Net Assets	-

Cash Receipts	-
Inc. in Trade Creditors	10
Cash Payments	10
Operating Cash Flows	10
Investing Cash Flows	-
Financing Cash Flows	-
Δ in Cash Held	10

Income statement and Cash flow statement are the subsets of a balance sheet

Financial Statements

Income Statement	
Revenue	1,000
Other Revenue	-
Operating Expenditure	-
Other Expenses	-
Net Operating Expenditure	-
EBITDA	1,000
Depreciation & Amortization	-
EBIT	1,000
Interest on Cash	-
Interest Expense	-
Net Interest Expense	-
NPBT	1,000
Tax Expense	-
NPAT	1,000

Balance Sheet	
Cash at Bank	1,000
Debtors	-
Other Current Assets	-
Current Assets	1,000
Fixed Assets	-
Other Non-Current Assets	-
Non-Current Assets	-
Total Assets	1,000
Creditors	-
Corporate Tax Payable	-
Interest Payable	-
Dividends Payable	-
Other Current Liabilities	-
Current Liabilities	-
Debt	-
Other Non-Current Liabilities	-
Non-Current Liabilities	-
Total Liabilities	-
Net Assets	1,000
Ordinary Equity	-
Other Equity	-
NPAT	1,000
Dividends Declared	-
Retained Profits	1,000
Total Equity	1,000

Cash Flow Statement	
Revenue	1,000
Decrease in Debtors	-
Other Cash Receipts	-
Cash Receipts	1,000
Operating Expenditure	-
Increase in Creditors	-
Other Cash Payments	-
Cash Payments	-
Interest on Cash	-
Interest Paid	-
Corporate Tax Paid	-
Other Operating Cash Flows	-
Operating Cash Flows	1,000
Capital Expenditure	-
Other Investing Cash Flows	-
Investing Cash Flows	-
Debt Drawdowns	-
Debt Repayments	-
Ordinary Equity Raisings	-
Ordinary Equity Buybacks	-
Dividends Paid	-
Other Financing Cash Flows	-
Financing Cash Flows	-
Change in Cash Held	1,000

Financial Management in Retailing - The Balance Sheet

Asset – Liabilities = Net worth/Owners Equity

Assets:

- Include any item a retailer owns with a monetary value.
- Current assets are cash in hand (or in the bank) and items readily converted to cash such as accounts receivables (amount owed to the firm)
- Fixed assets are property, fixtures and equipment's used for a long term.
- Fixed assets are recorded at cost less depreciation.

Liabilities:

- Are financial obligations a retailer incurs while operating his business.
- Current liabilities are payroll, tax payable, accounts payable and short term loans

Balance Sheet	
Cash at Bank	10
Current Assets	10
Non-Current Assets	-
Total Assets	10
Trade Creditors	10
Current Liabilities	10
Non-Current Liabilities	-
Total Liabilities	10
Retained Earnings	-
Total Equity	-
Net Assets	-



Financial Statements

Income Statement	
Revenue	1,000
Other Revenue	-
Operating Expenditure	-
Other Expenses	-
Net Operating Expenditure	-
EBITDA	1,000
Depreciation & Amortization	-
EBIT	1,000
Interest on Cash	-
Interest Expense	-
Net Interest Expense	-
NPBT	1,000
Tax Expense	-
NPAT	1,000

Balance Sheet	
Cash at Bank	1,000
Debtors	-
Other Current Assets	-
Current Assets	1,000
Fixed Assets	-
Other Non-Current Assets	-
Non-Current Assets	-
Total Assets	1,000
Creditors	-
Corporate Tax Payable	-
Interest Payable	-
Dividends Payable	-
Other Current Liabilities	-
Current Liabilities	-
Debt	-
Other Non-Current Liabilities	-
Non-Current Liabilities	-
Total Liabilities	-
Net Assets	1,000
Ordinary Equity	-
Other Equity	-
NPAT	1,000
Dividends Declared	-
Retained Profits	1,000
Total Equity	1,000

Cash Flow Statement	
Revenue	1,000
Decrease in Debtors	-
Other Cash Receipts	-
Cash Receipts	1,000
Operating Expenditure	-
Increase in Creditors	-
Other Cash Payments	-
Cash Payments	-
Interest on Cash	-
Interest Paid	-
Corporate Tax Paid	-
Other Operating Cash Flows	-
Operating Cash Flows	1,000
Capital Expenditure	-
Other Investing Cash Flows	-
Investing Cash Flows	-
Debt Drawdowns	-
Debt Repayments	-
Ordinary Equity Raisings	-
Ordinary Equity Buybacks	-
Dividends Paid	-
Other Financing Cash Flows	-
Financing Cash Flows	-
Change in Cash Held	1,000

Financial Management in Retailing – Income statement

Net Sales: The revenues received by a retailer during a given period of time after deducting customer returns, markdowns and employee discount.

Cost of Goods Sold: the amount to acquire the merchandise

Gross Profit: Difference between net sales and the cost of goods sold

Operating Expenses: the cost of running a business

Taxes: the portion of business turned over to the government

Net Profit After Taxes: the profit earned after all the costs and taxes have been deducted.

S no	Type of metrics	Amount
1	Net Sales	\$330,000
2	Cost of goods sold (COGS)	\$180,000
3	Gross Margin (1-2)	\$150,000
4	Operating Expenses	\$ 95,250
5	Other expenses	\$ 20,000
6	Total Expenses (4+5)	\$115,250
7	Net profit before tax (3-7)	\$ 34,750
8	Taxes	\$ 15,500
9	Net profit after tax (7-8)	\$ 19,250

Financial Statements

Income Statement	
Revenue	1,000
Other Revenue	-
Operating Expenditure	-
Other Expenses	-
Net Operating Expenditure	-
EBITDA	1,000
Depreciation & Amortization	-
EBIT	1,000
Interest on Cash	-
Interest Expense	-
Net Interest Expense	-
NPBT	1,000
Tax Expense	-
NPAT	1,000

Balance Sheet	
Cash at Bank	1,000
Debtors	-
Other Current Assets	-
Current Assets	1,000
Fixed Assets	-
Other Non-Current Assets	-
Non-Current Assets	-
Total Assets	1,000
Creditors	-
Corporate Tax Payable	-
Interest Payable	-
Dividends Payable	-
Other Current Liabilities	-
Current Liabilities	-
Debt	-
Other Non-Current Liabilities	-
Non-Current Liabilities	-
Total Liabilities	-
Net Assets	1,000
Ordinary Equity	-
Other Equity	-
NPAT	1,000
Dividends Declared	-
Retained Profits	1,000
Total Equity	1,000

Cash Flow Statement	
Revenue	1,000
Decrease in Debtors	-
Other Cash Receipts	-
Cash Receipts	1,000
Operating Expenditure	-
Increase in Creditors	-
Other Cash Payments	-
Cash Payments	-
Interest on Cash	-
Interest Paid	-
Corporate Tax Paid	-
Other Operating Cash Flows	-
Operating Cash Flows	1,000
Capital Expenditure	-
Other Investing Cash Flows	-
Investing Cash Flows	-
Debt Drawdowns	-
Debt Repayments	-
Ordinary Equity Raisings	-
Ordinary Equity Buybacks	-
Dividends Paid	-
Other Financing Cash Flows	-
Financing Cash Flows	-
Change in Cash Held	1,000

Financial Management in Retailing – Cash Flow Statement

The main components of the cash flow statement are:

Cash from operating activities

how much cash is generated from a company's products or services.

- Receipts from sales of goods and services
- Payments made to suppliers of goods
- Salary and wage payments to employees
- Rent payments

Cash from investing activities

Uses of cash from a company's investments

- Merger or acquisition
- Buying New equipment, building etc

Cash from financing activities

Sources of cash from investors or banks

- Payment of dividends
- Payments for stock repurchases
- Repayment of debt principal (loans)

Cash Flow from Operations	
Net income	\$60,000
<i>Additions to Cash</i>	
Depreciation	\$20,000
Increase in Accounts Payable	\$10,000
<i>Subtractions from Cash</i>	
Increase in Accounts Receivable	(\$20,000)
Increase in inventory	(\$30,000)
<u>Net Cash from Operations</u>	<u>\$40,000</u>
Cash Flow from Investing	
Purchase of equipment	(\$5,000)
Cash Flow from Financing	
Notes payable	\$7,500
<u>Cash Flow for Month Ended December 31, 2018</u>	<u>\$42,500</u>

Financial Management in Retailing – Cash Flow Statement

Income Statement

Balance Sheet

Cash Flow Statement

Income Statement	
Revenue	-
COGS	-
Gross Margin	-
Operating Expenditure	-
EBITDA	-
Deprn. & Amort.	-
EBIT	-
Interest Expense	-
NPBT	-
Tax Expense	-
NPAT	-

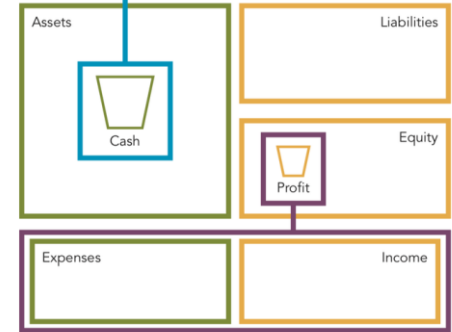
Balance Sheet	
Cash at Bank	10
Current Assets	10
Non-Current Assets	-
Total Assets	10
Trade Creditors	10
Current Liabilities	10
Non-Current Liabilities	-
Total Liabilities	10
Retained Earnings	-
Total Equity	-
Net Assets	-

Increase in Accounts Payable	10
------------------------------	----

Cash Flow Statement	
Cash Receipts	-
Inc. in Trade Creditors	10
Cash Payments	10
Operating Cash Flows	10
Investing Cash Flows	-
Financing Cash Flows	-
Δ in Cash Held	10

Cash Flow Statement

Balance at start 2028	291,383
Operational changes	-47,933
Investment changes	-163,007
Financing changes	-34,360
Balance at end 2028	46,083



Financial Statements

Income Statement	
Revenue	1,000
Other Revenue	-
Operating Expenditure	-
Other Expenses	-
Net Operating Expenditure	-
EBITDA	1,000
Depreciation & Amortization	-
EBIT	1,000
Interest on Cash	-
Interest Expense	-
Net Interest Expense	-
NPBT	1,000
Tax Expense	-
NPAT	1,000

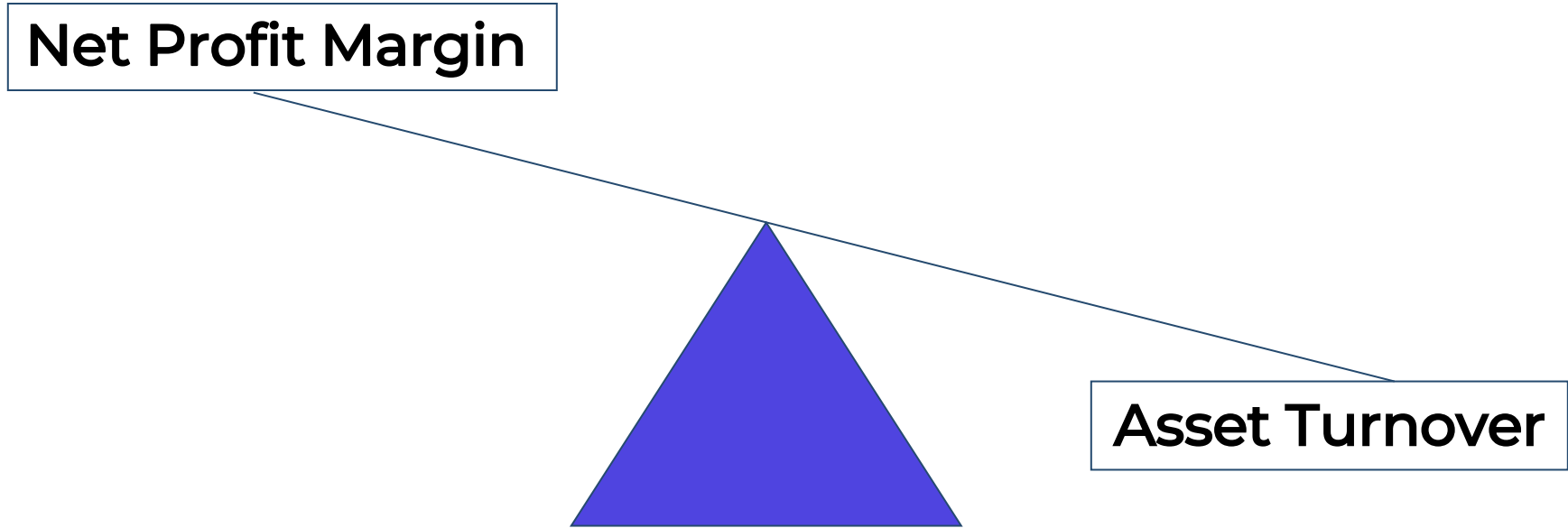
Balance Sheet	
Cash at Bank	1,000
Debtors	-
Other Current Assets	-
Current Assets	1,000
Fixed Assets	-
Other Non-Current Assets	-
Non-Current Assets	-
Total Assets	1,000
Creditors	-
Corporate Tax Payable	-
Interest Payable	-
Dividends Payable	-
Other Current Liabilities	-
Current Liabilities	-
Debt	-
Other Non-Current Liabilities	-
Non-Current Liabilities	-
Total Liabilities	-
Net Assets	1,000
Ordinary Equity	-
Other Equity	-
NPAT	1,000
Dividends Declared	-
Retained Profits	1,000
Total Equity	1,000

Cash Flow Statement	
Revenue	1,000
Decrease in Debtors	-
Other Cash Receipts	-
Cash Receipts	1,000
Operating Expenditure	-
Increase in Creditors	-
Other Cash Payments	-
Cash Payments	-
Interest on Cash	-
Interest Paid	-
Corporate Tax Paid	-
Other Operating Cash Flows	-
Operating Cash Flows	1,000
Capital Expenditure	-
Other Investing Cash Flows	-
Investing Cash Flows	-
Debt Drawdowns	-
Debt Repayments	-
Ordinary Equity Raisings	-
Ordinary Equity Buybacks	-
Dividends Paid	-
Other Financing Cash Flows	-
Financing Cash Flows	-
Change in Cash Held	1,000

Asset Management vs Margin Management



Financial Trade-off Made by Retailers to Increase ROI

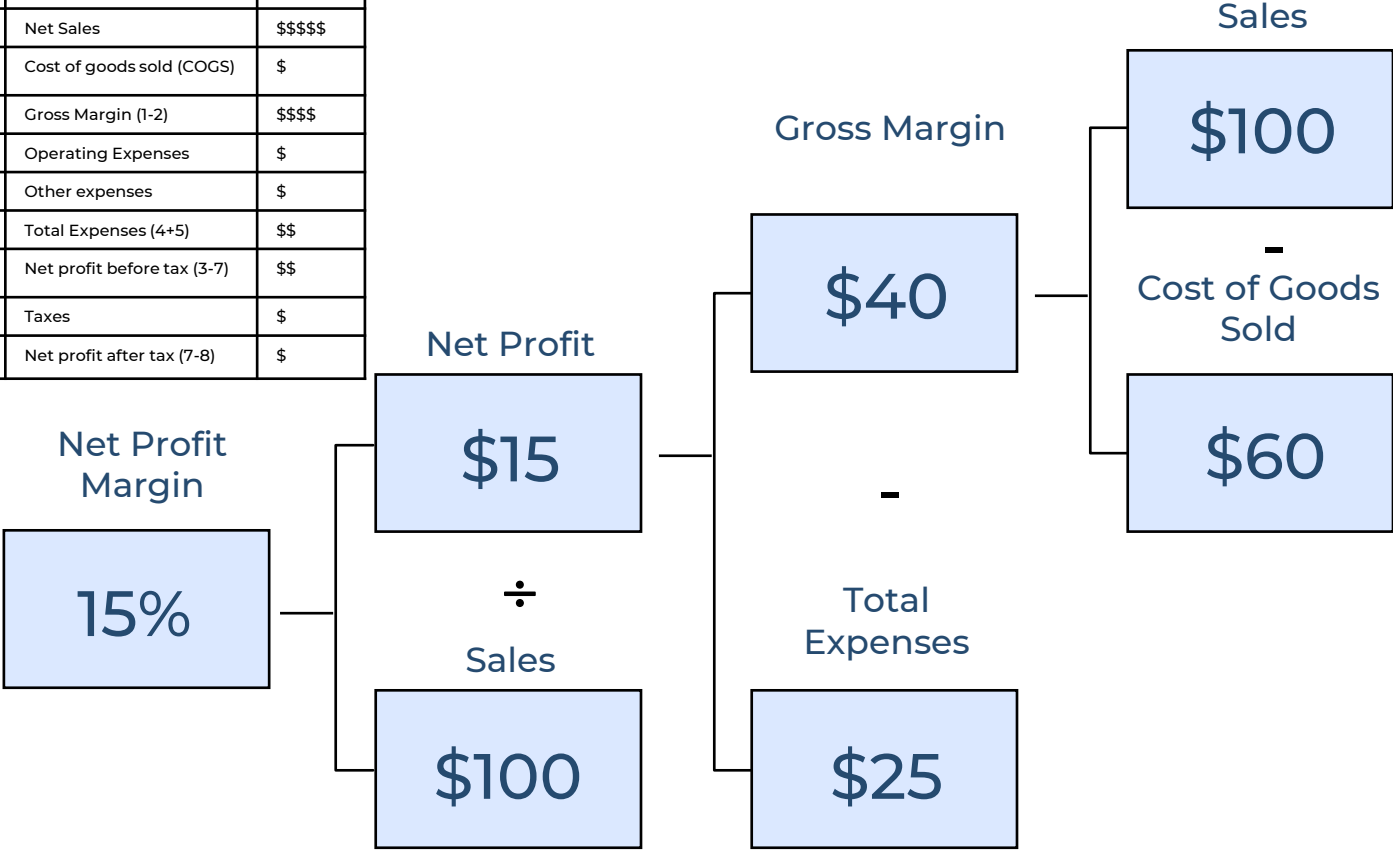


The Strategic Profit Model: Margin Management

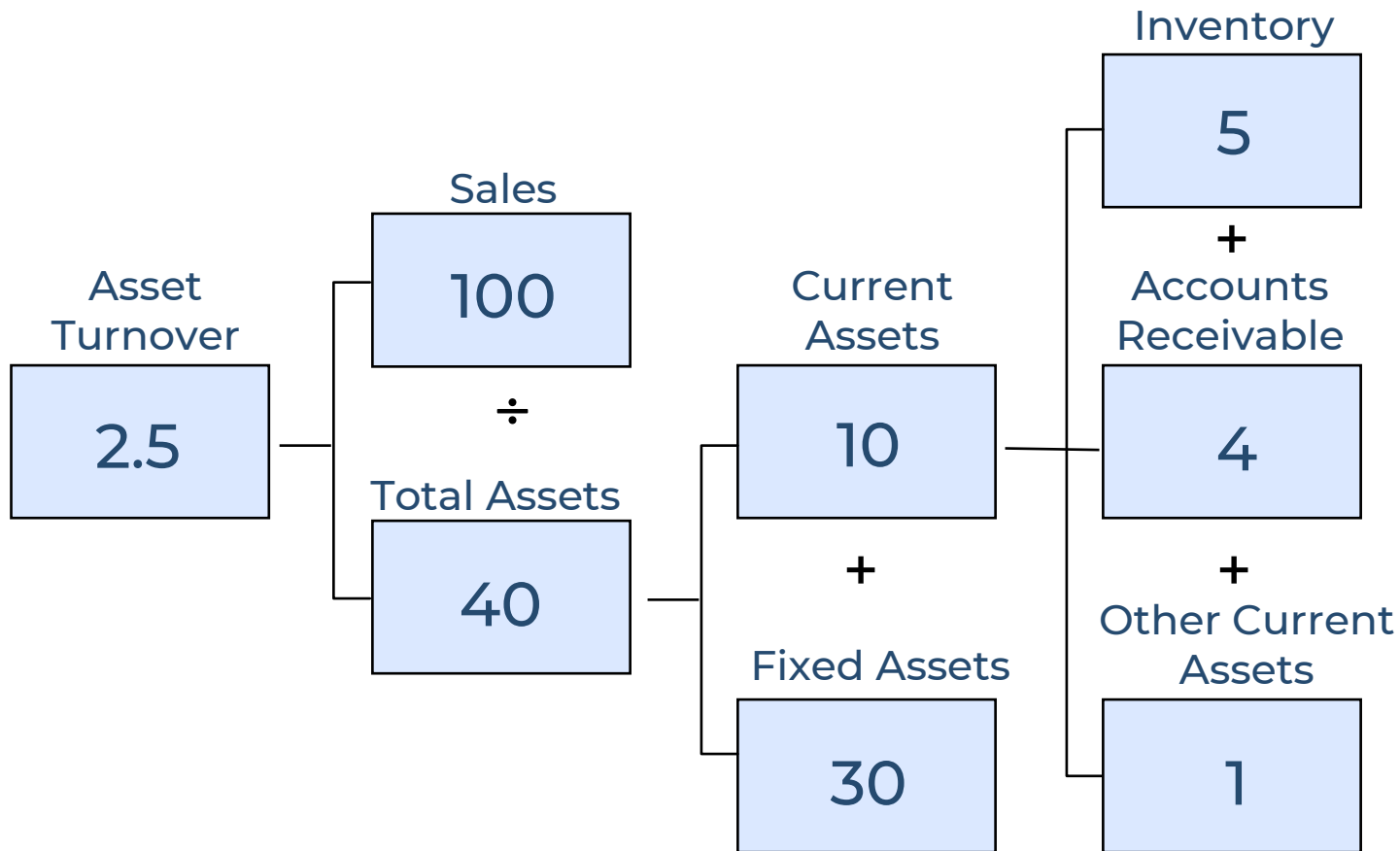
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8	Taxes	\$ 15,500
9	Net profit after tax (7-8)	\$ 19,250

The Strategic Profit Model: Margin Management

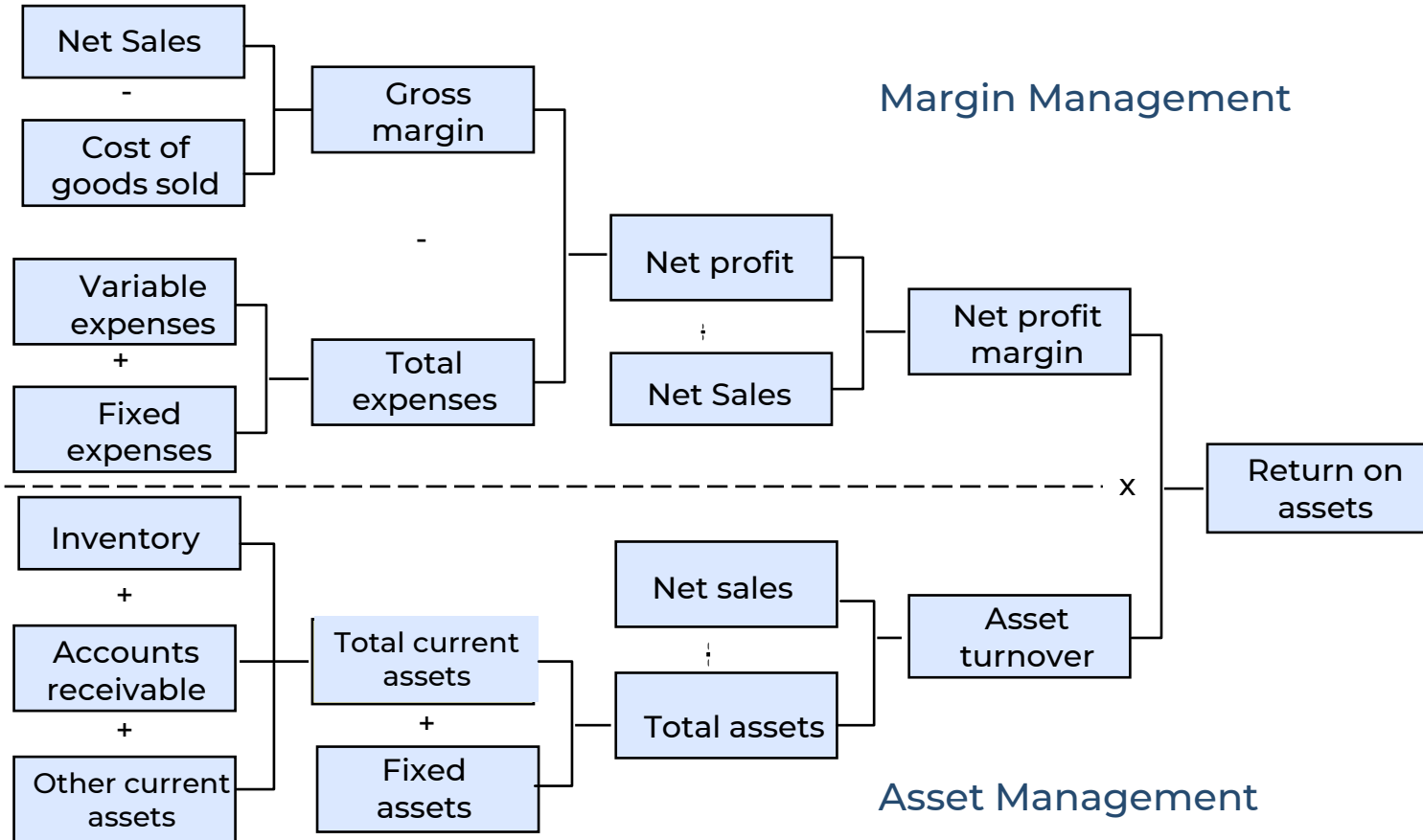
S no	Type of metrics	Amount
1	Net Sales	\$\$\$\$\$
2	Cost of goods sold (COGS)	\$
3	Gross Margin (1-2)	\$\$\$\$
4	Operating Expenses	\$
5	Other expenses	\$
6	Total Expenses (4+5)	\$\$
7	Net profit before tax (3-7)	\$\$
8	Taxes	\$
9	Net profit after tax (7-8)	\$



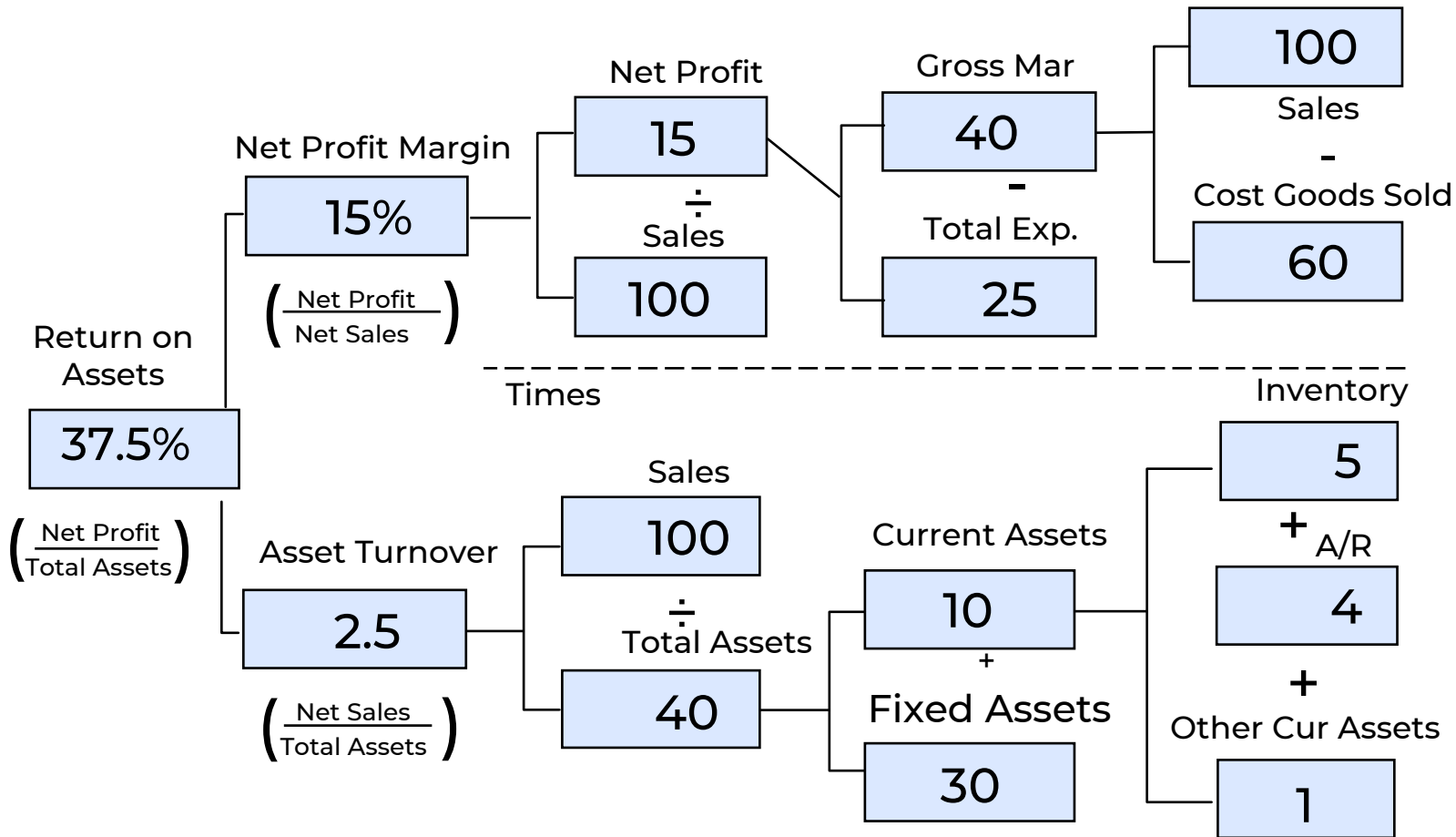
The Strategic Profit Model: Asset Management



The Strategic Profit Model



The Strategic Profit Model: Asset Management



Return on Asset is all that matters

Profit Margin x Asset turnover = Return on assets

$\frac{\text{Net profit}}{\text{Net sales (crossed out)}} \times \frac{\text{Net sales (crossed out)}}{\text{Total assets}} = \frac{\text{Net profit}}{\text{Total assets}}$

The Strategic Profit Model: An Overview

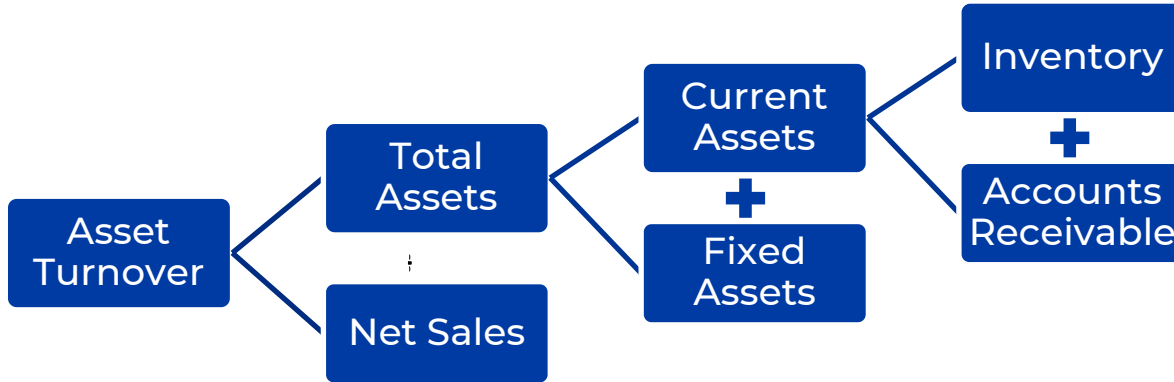
Return on Asset is all that matters

	Net Profit Margin	X	Asset Turnover	=	Return on Assets
La Madeline Bakery	1%	X	10 times	=	10%
Kalame Jewelry	10%	X	1 time	=	10%

Breaking down Asset Management

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

	Fast-food		Telecommunications	
	Company A	Company B	Company C	Company D
<i>(in dollars)</i>				
Beginning Assets	\$54,341	\$250,000	\$75,340	\$132,434
Ending Assets	\$55,421	\$252,000	\$77,506	\$134,545
Average Total Assets	\$54,881	\$251,000	\$76,423	\$133,490
Net Sales	\$43,141	\$212,134	\$54,231	\$75,654
Asset Turnover Ratio	0.79	0.85	0.71	0.57



Asset Turnover Ratio

Measures the efficiency with which a company uses its assets to produce sales.

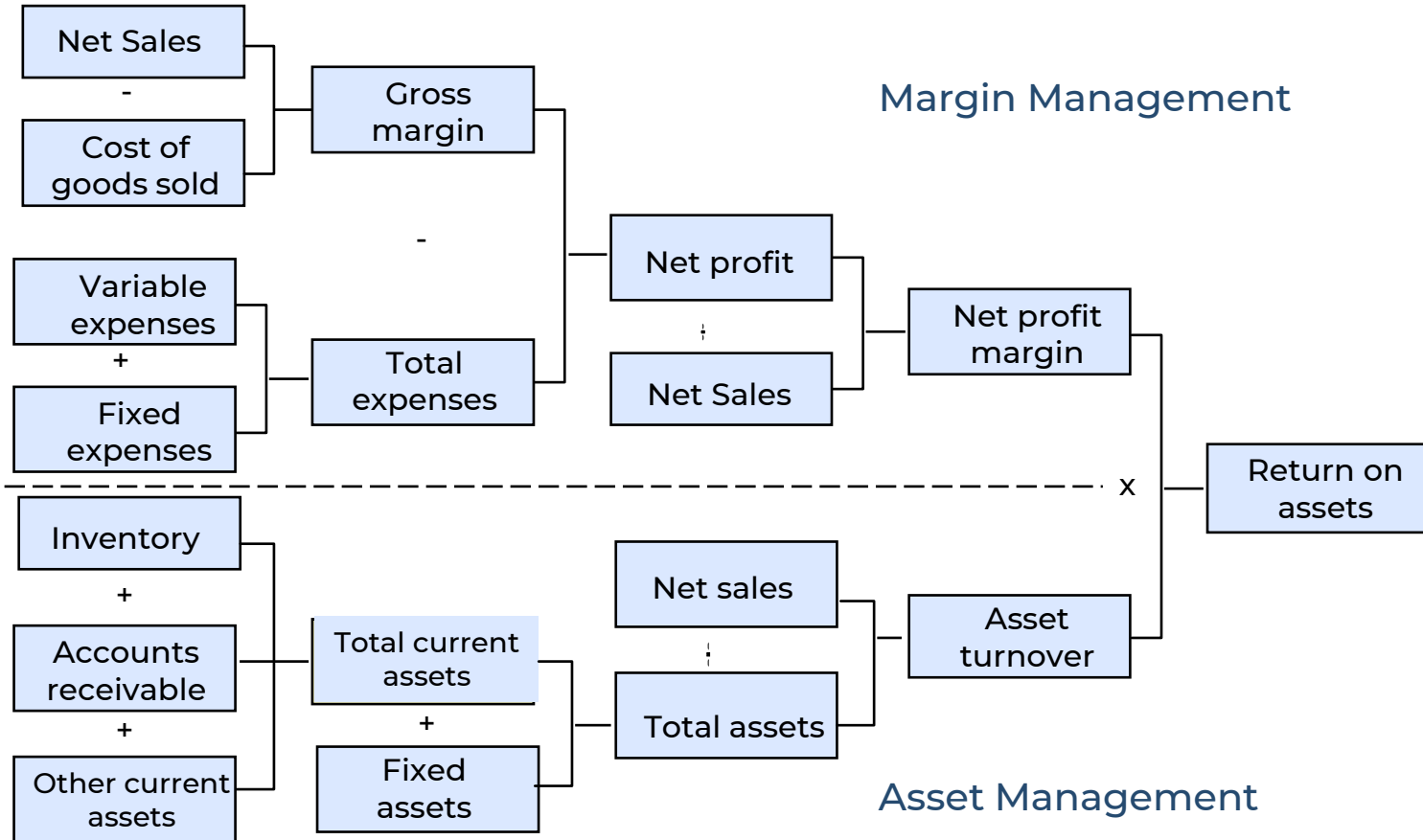
A company with a high asset turnover ratio operates more efficiently as compared to competitors with a lower ratio.

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

	Fast-food		Telecommunications	
<i>(in dollars)</i>	Company A	Company B	Company C	Company D
Beginning Assets	\$54,341	\$250,000	\$75,340	\$132,434
Ending Assets	\$55,421	\$252,000	\$77,506	\$134,545
Average Total Assets	\$54,881	\$251,000	\$76,423	\$133,490
Net Sales	\$43,141	\$212,134	\$54,231	\$75,654
Asset Turnover Ratio	0.79	0.85	0.71	0.57

A lower ratio indicates poor efficiency, which may be due to poor utilization of fixed assets, poor collection methods, or poor inventory management.

The Strategic Profit Model

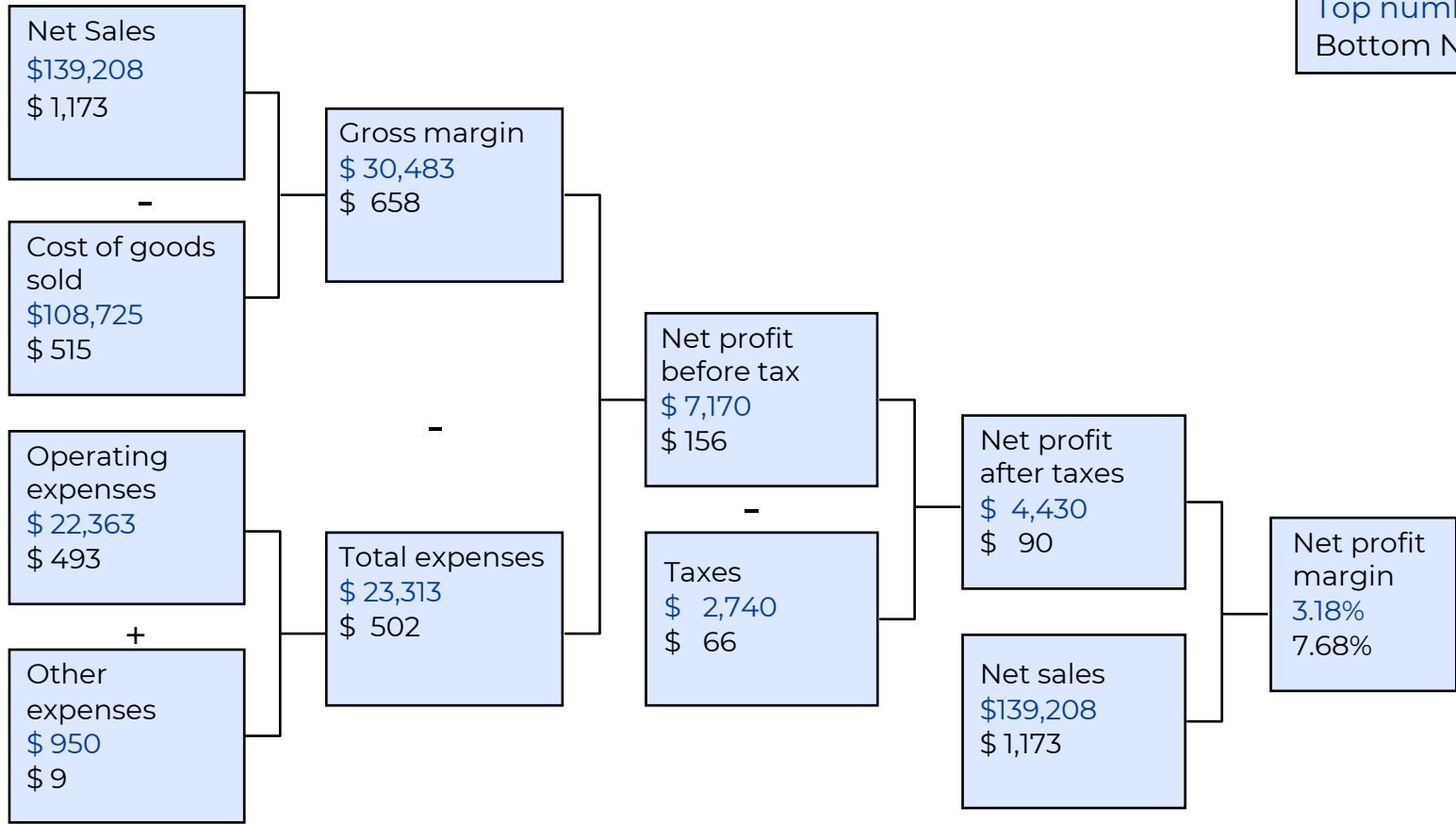


Income Statements for Wal-Mart and Tiffany & Co. 2002(\$in millions)

S no	Type of metrics	Walmart	Tiffany
1	Net Sales	\$139,208	\$1,173
2	Cost of goods sold (COGS)	\$108,725	\$515
3	Gross Margin (1-2)	??	??
4	Operating Expenses	\$ 20,000	\$500
5	Other expenses	\$313	\$2
6	Total Expenses (4+5)	??	??
7	Net profit before tax (3-7)	\$7,170	\$156
8	Taxes	\$2.740	\$66
9	Net profit after tax (7-8)	\$4,430	\$90

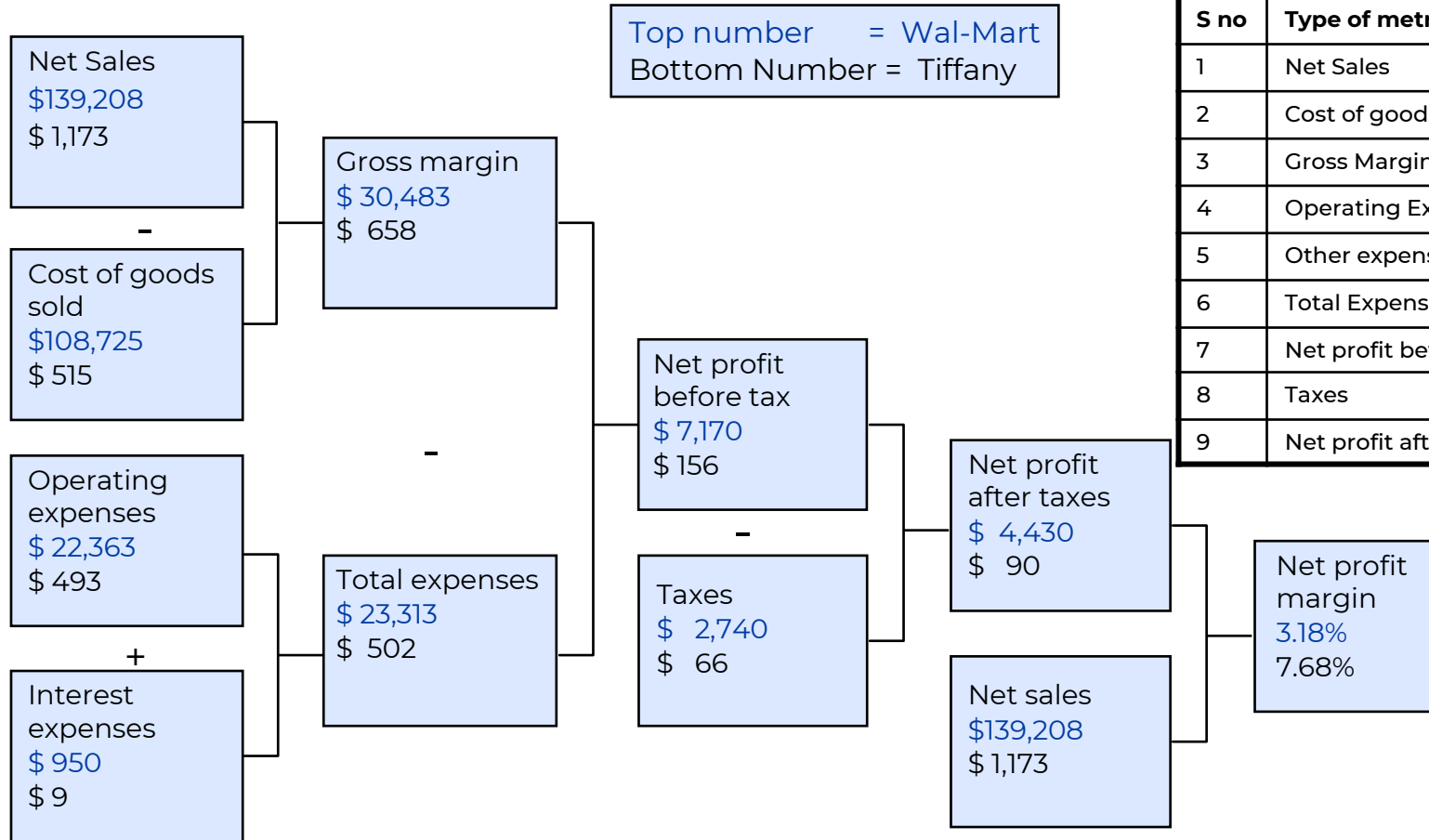
Profit Margin Models for Wal-Mart Stores and Tiffany & Co. (\$ in millions)

Top number = Wal-Mart
Bottom Number = Tiffany



Profit Margin Models for Wal-Mart Stores and Tiffany & Co.

(\$ in millions)



S no	Type of metrics	Amount
1	Net Sales	\$\$\$\$\$
2	Cost of goods sold (COGS)	\$
3	Gross Margin (1-2)	\$\$\$\$
4	Operating Expenses	\$
5	Other expenses	\$
6	Total Expenses (4+5)	\$\$
7	Net profit before tax (3-7)	\$\$
8	Taxes	\$
9	Net profit after tax (7-8)	\$

Gross Margin for Wal-Mart and Tiffany

$$\text{Gross Margin \%} = \frac{\text{Gross Margin}}{\text{Net Sales}}$$

$$\text{Wal-Mart} = \frac{\$30,483}{\$139,208} = 21.89\%$$

$$\text{Tiffany} = \frac{\$658}{\$1,173} = 58\%$$

Why does Tiffany's have higher margins than Wal-Mart?

Does the higher margins mean the Tiffany's is more profitable?

Total Expenditures / Net Sales Ratios for Wal-Mart and Tiffany

$$\text{Total Expenses/Net sales ratio} = \frac{\text{Total Expenses}}{\text{Net sales ratio}}$$

$$\text{Wal-Mart} = \frac{\$ 23,313}{\$139,208} = 16.74\%$$

$$\text{Tiffany} = \frac{\$502}{\$1,173} = 42.79\%$$

Why does Tiffany's have higher expenses than Wal-Mart?

Types of Retail Operating Expenses

Selling expenses

= Sales staff salaries + Commissions + Benefits

General expenses

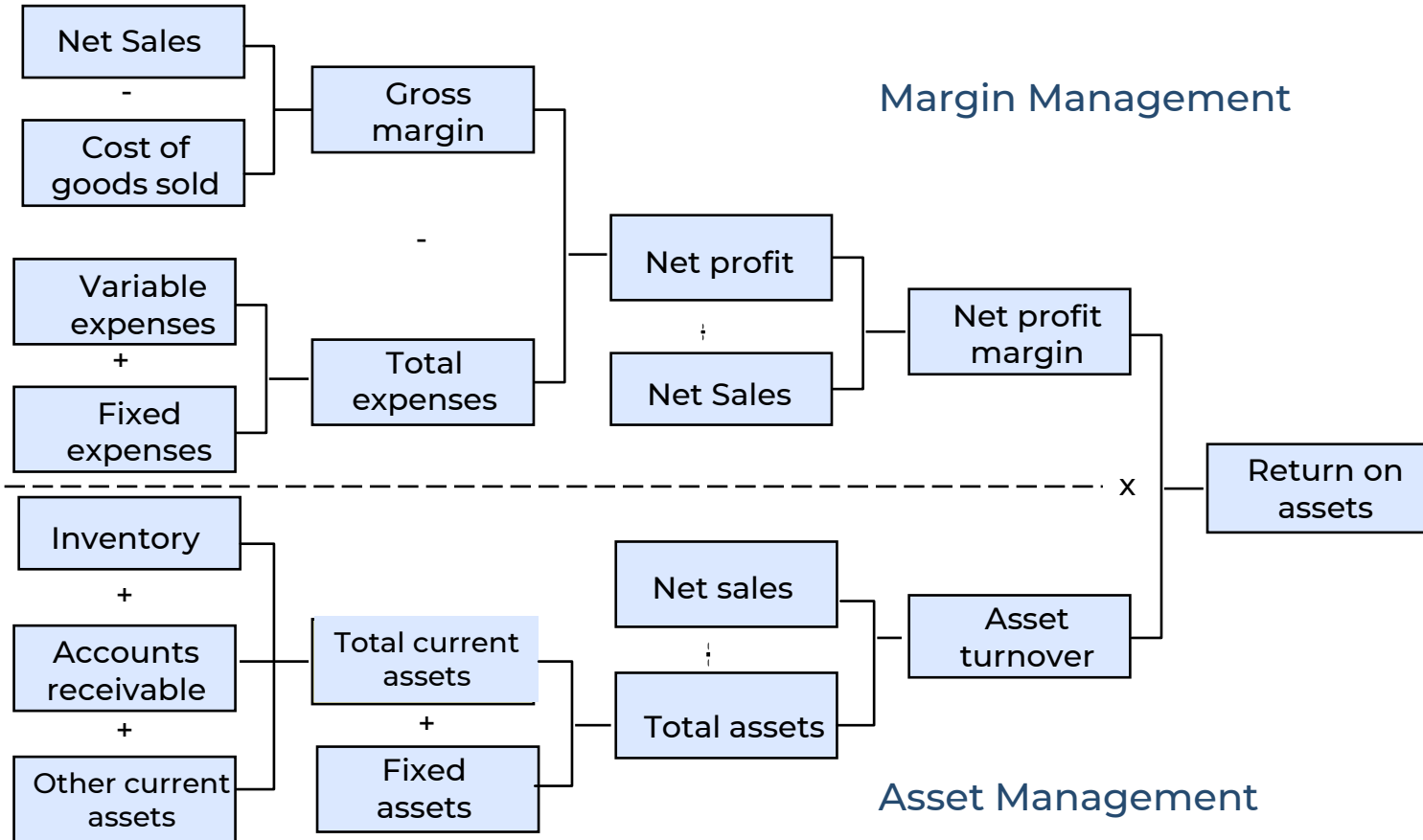
= Rent + Utilities + Miscellaneous expenses

Administrative expenses

= Salaries of all employees other than salespeople +
Operations of buying
offices + Other administrative expenses

Why does Tiffany's have higher expenses than Wal-Mart?

The Strategic Profit Model

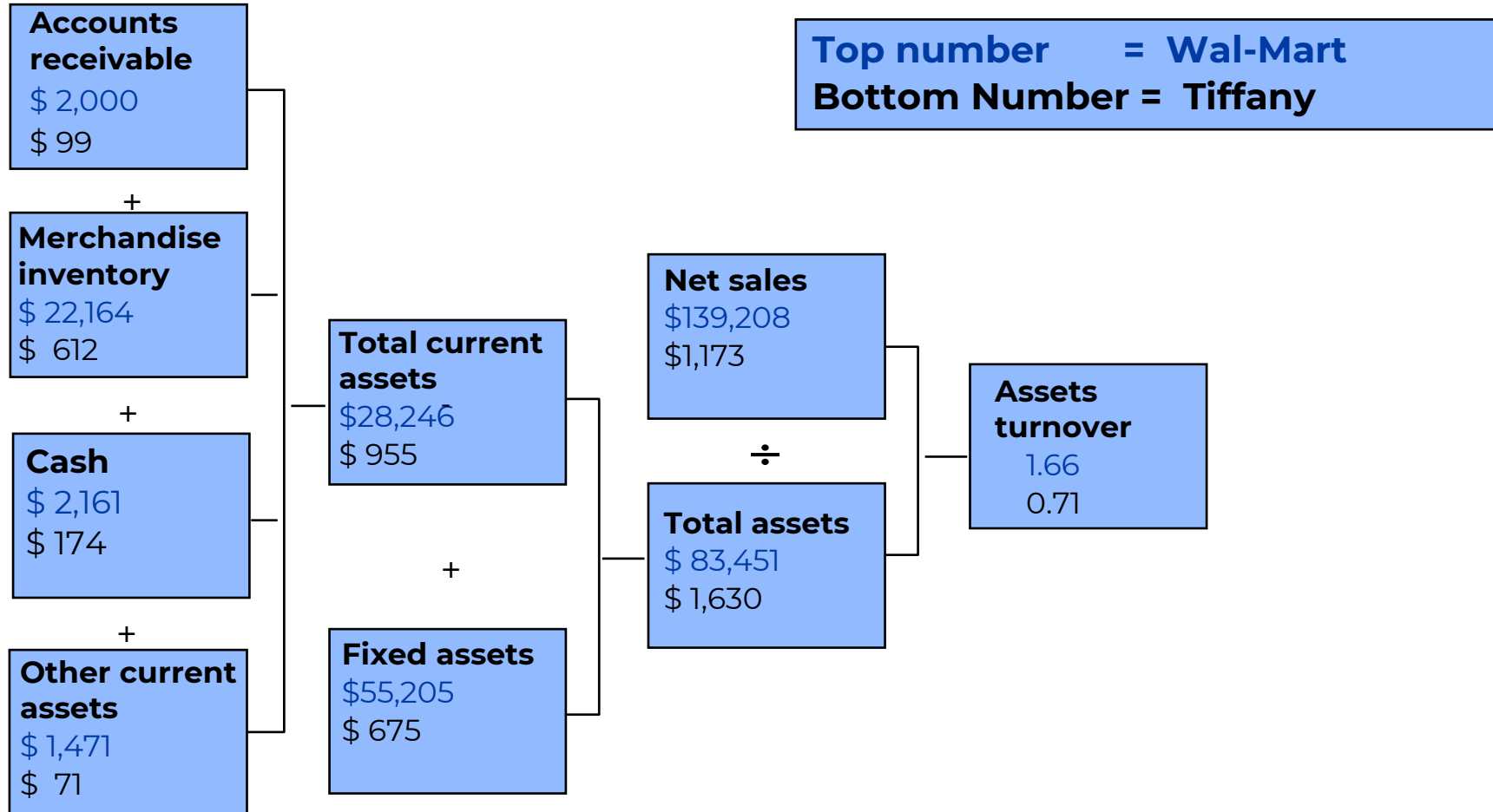


Balance Sheets for Wal-Mart Stores, Inc. and Tiffany (\$ in millions)

Type of metrics		Walmart	Tiffany
Current Assets		Assets	
a	Accounts receivable	\$2,000	\$99
b	Merchandise inventory	22,164	612
c	Cash	2,161	174
d	Other current assets	1,471	71
e	Total current assets	28,246	955
Fixed assets			
a	Building equipment's and others (Fixed assets, less depreciation)	<u>55,205</u>	<u>675</u>
Total assets		\$83,451	\$1,630

	Liabilities	
Current Liabilities	\$27,282	\$341
Long term Liabilities	18,732	221
Other Liabilities	<u>2,335</u>	<u>30</u>
Total Liabilities	\$48,349	\$593

Asset Turnover Model for Wal-Mart Stores, Inc. and Tiffany & Co. and Subsidiaries (\$ in millions)



Asset Turnover Model for Wal-Mart Stores, Inc. and Tiffany & Co. and Subsidiaries (\$ in millions)

$$\text{Inventory to assets ratio} = \frac{\text{Inventory}}{\text{Total assets}}$$

$$\text{Inventory turnover} = \frac{\text{Net sales}}{\text{Avg. inventory}}$$

$$\text{Wal-Mart} = \frac{\$22,614}{\$83,451}$$

$$\text{Wal-Mart} = \frac{\$139,208}{\$83,451}$$

$$\text{Tiffany} = \frac{\$612}{\$1630}$$

$$\text{Tiffany} = \frac{\$1173}{\$1630}$$

Asset Turnover for Different Fixtures

Efficiency of a company's use of its assets in generating sales revenue

$$\text{Asset turnover} = \frac{\text{Net Sales}}{\text{Total assets}}$$

$$\text{Antique cabinet} = \frac{\$50,000}{\$ 5,000} = 10$$

$$\text{Plywood cabinet} = \frac{\$40,000}{\$ 500} = 80$$

Companies with low profit margins tend to have high asset turnover

Asset Turnover for Walmart and Tiffany – Assignment

Efficiency of a company's use of its assets in generating sales revenue

$$\text{Asset turnover} = \frac{\text{Net Sales}}{\text{Total assets}}$$

$$\text{Antique cabinet} = \frac{\$??}{\$??} = ??$$

$$\text{Plywood cabinet} = \frac{\$??}{\$??} = ??$$

Return on Assets - Assignment

$$\begin{aligned}\text{Return on assets} &= \text{Net profit margin} \times \text{Asset turnover} \\ &= \frac{\text{Net profit}}{\text{Net sales}} \times \frac{\text{Net sales}}{\text{Total assets}} \\ &= \frac{\text{Net Profit}}{\text{Total assets}}\end{aligned}$$

Wal-Mart (ROA) ??

Tiffany (ROA) ??

Gross Margin Return on Investment (GMROI)

The amount of profit you receive from the retail inventory you purchase. Shows whether your merchandise has turned a profit.

$$\text{GMROI} = \frac{\text{Gross Profit}}{\text{Average Inventory}}$$

Example: If a business has a gross profit of \$75,000 and an average inventory cost of \$44,000. Its GMROI calculation would look like this:

$$\$75,000 / \$44,000 = \$1.70$$

Other Key Business Ratios

Quick Ratio: cash plus account receivables divided by total current liabilities

Current Ratio: total current assets divided by total current liabilities

Collection Period: account receivables divided by net sales then multiplied by 365.

Accounts Payable to Net Sales: compares how a retailer pays suppliers relative to volume transacted.

Overall Gross Profit: net sales minus COGS then divided by net sales.

Financial Leverage: total assets divided by net worth.

Summarise Retail Finance

Net profit
margin

×

Asset
turnover

×

Financial
leverage

=

Return on
net worth

$\frac{\text{Net profit}}{\text{Net sales}}$

×

$\frac{\text{Net sales}}{\text{Total assets}}$

×

$\frac{\text{Total assets}}{\text{Net worth}}$

=

$\frac{\text{Net profit}}{\text{Net worth}}$

Income Statements of Your dream company

	Dream company 1	Dream company 2
Net Sales	\$ 200,000	\$ 200,000
Less: Cost of goods sold	110,000	110,000
Gross margin	90,000	90,000
Less: Total expenses	30,000	50,000
Net profit, pre-tax	60,000	40,000
Less: Taxes	27,000	18,000
Tax rate	45%	45%
Net profit after tax	33,000	22,000

$$\text{Gross margin \%} = \frac{\text{Gross margin}}{\text{Net sales}}$$

Balance of Your dream company

ASSETS		Dream company 1	Dream company 2
Current assets			
	Merchandise inventory	\$44,000	\$22,000
	Cash	2,000	0
	Other current assets	<u>3,000</u>	<u>2,500</u>
	Total current assets	49,000	24,500
Fixed asset		125,000	70,000
Total assets		\$174,000	\$94,500

LIABILITIES		Dream company 1	Dream company 2
Current liabilities			
	Accounts payable	\$44,000	\$30,000
	Notes payable	<u>7,000</u>	<u>5,000</u>
Total current liabilities		42,000	35,000
Long-term liabilities		10,000	\$12,500
Total liabilities		\$52,000	47,000

OWNERS' EQUITY	Dream company 1	Dream company 2
Owners' equity	\$122,000	\$47,500
Total liabilities and owners' equity	\$174,000	\$94,500

Ratio of Your dream company

$$\text{Total Expenses/Net Sales Ratio} = \frac{\text{Total Expenses}}{\text{Net Sales}}$$

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Net Sales}}$$

$$\text{Inventory turnover} = \frac{\text{Net sales}}{\text{Average inventory}}$$

$$\text{Asset turnover} = \frac{\text{Net sales}}{\text{Total assets}}$$

Examples of Performance Measures Used by Retailers

Level of organization	Output	Input	Productivity (Output/Input)
Corporate (measures of entire corporation)	Net sales	Square feet of store space	Return on assets
	Net profits	Number of employees	Asset turnover
	Growth in sales, profits	Inventory	Sales per employee

Examples of Performance Measures Used by Retailers

Level of organization	Output	Input	Productivity (Output/Input)
Merchandise management (measure for a merchandise category)	Net sales	Inventory level	Gross margin Return on Investment (GMROI)
	Gross margin	Markdowns	Inventory turnover
	Growth in sales, profits	Advertising expenses	Advertising on a percentage of sales*
		Cost of merchandise	Markdown as a percentage of sales*

* These productivity measures are commonly expressed as an input/output.

Examples of Performance Measures Used by Retailers

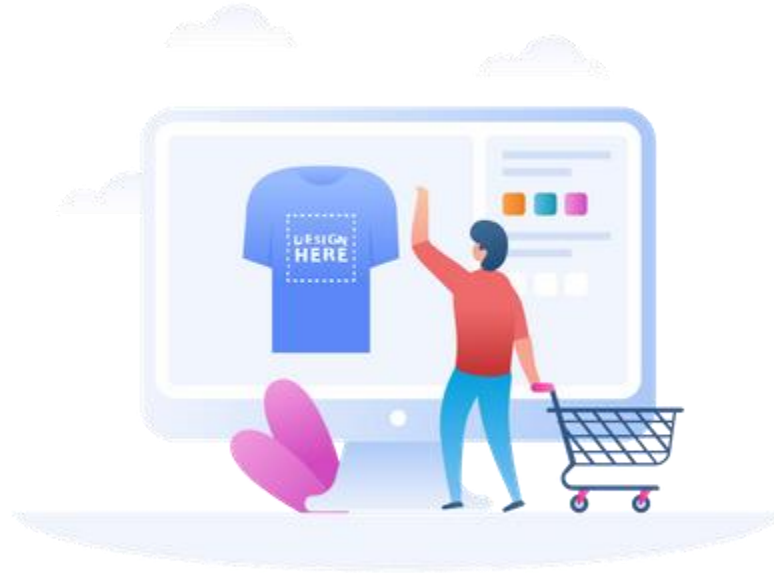
Level of organization	Output	Input	Productivity (Output/Input)
Store operations (measure for a store or department within a store)	Net sales	Square feet of selling areas	Net sales per square foot
	Gross margin	Expenses for utilities	Net sales per sales associate or per selling hour
	Growth in sales	Number of sales associates	Utilities expenses as a percentages of sales*

* These productivity measures are commonly expressed as an input/output.

Examples of Performance Measures Used by Retailers

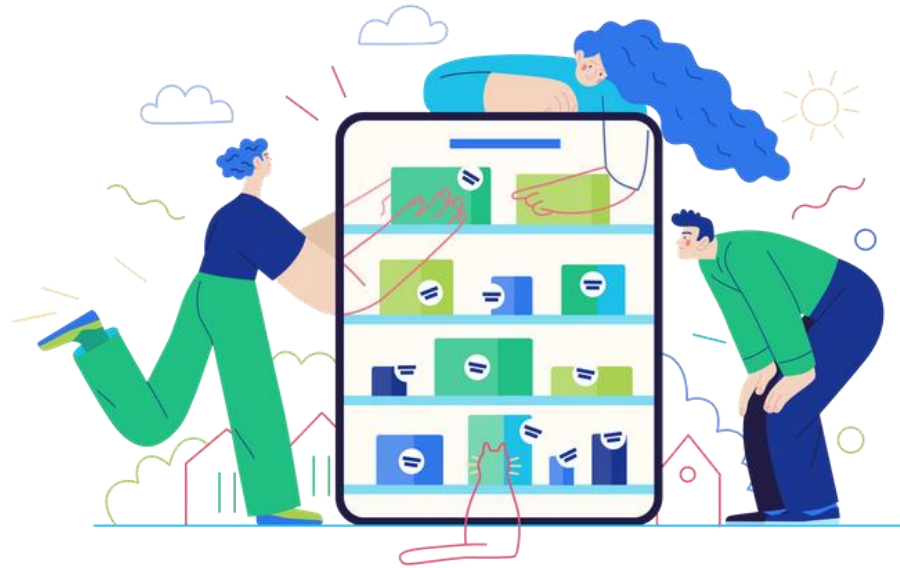
Level of organization	Output	Input	Productivity (Output/Input)
Corporate (CEO)	Net profit	Owners' equity	$ROE = \frac{\text{Net profits}}{\text{Owners Equity}}$
Merchandising (merchandise manager and buyer)	Gross margin	Inventory*	$GMROI = \frac{\text{Gross margin}}{\text{Inventory}}$
Store operations (director of stores, store manager)	Net sales	Square foot	$\frac{\text{Net Sales}}{\text{Square foot}}$
*Inventory = Average inventory at cost			

Merchandise Management



Merchandise Management

Inventory is one of the biggest costs for any retailer and making sure your inventory is translating into sales is essential.



Merchandise Management

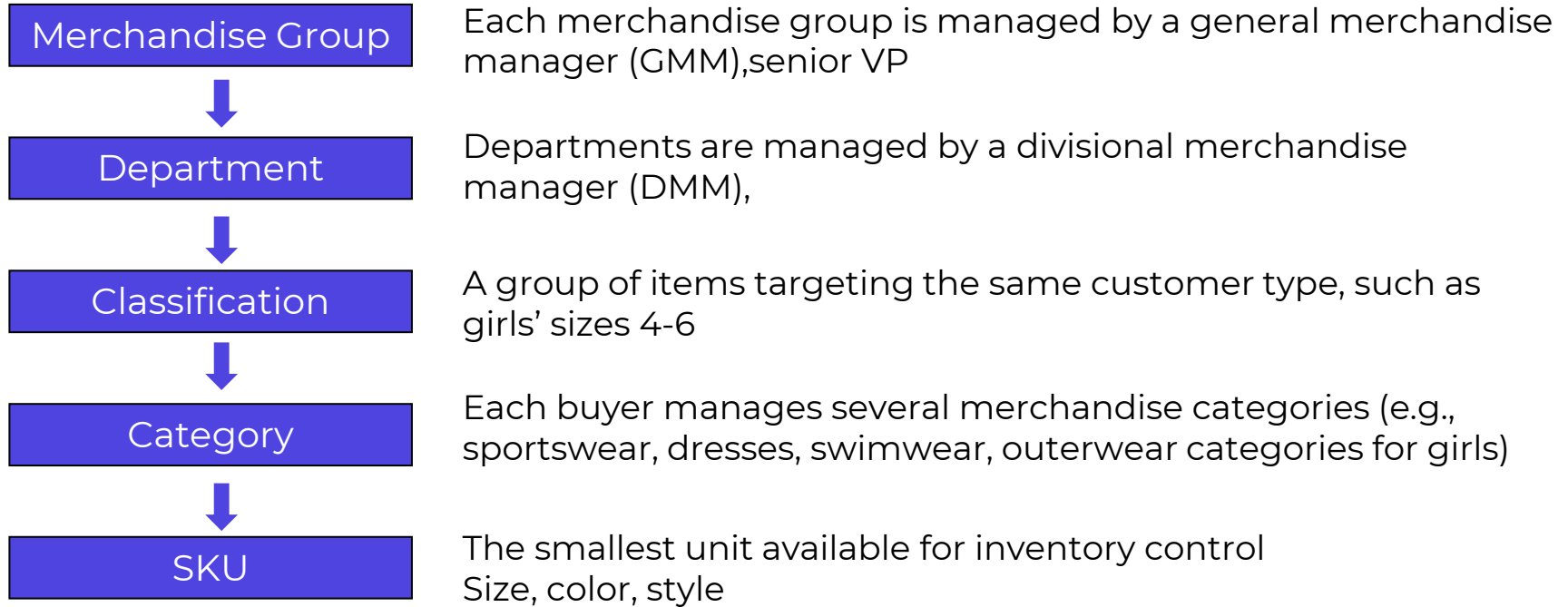
Process by which a retailer offers the correct quantity of the right merchandise in the right place at the right time and meets the company's financial goals.

Retailers Portfolio Management:-

- Dollars to invest in inventory
- Invest in “hot” merchandise
- Save a little for opportunities (open to buy)
- Monitor portfolio of merchandise (stocks)
- Sell losers (markdowns)



Buying Organization



Category Management

The process of managing a retail business with the objective of maximizing the sales and profits of a category, not just the brand

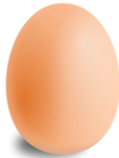
- Helps retailer understand consumer behaviour
- Creates assortments that satisfy the customer
- Improves profitability of category



Types of Merchandise Management Systems

Staple Merchandise

- Predictable Demand
- Relatively Accurate Forecasts
- Continuous Replenishment



Fashion Merchandise

- Unpredictable Demand
- Difficult to Forecast Sales
- Merchandise Budget Plan
- Open-to-Buy



Evaluating Merchandise Management Performance - GMROI

Merchandise managers have control over

- The merchandise they buy
- The price at which the merchandise is sold
- The cost of the merchandise

Merchandise managers do not have control over

- Operating expenses
- Human resources
- Real estate
- Supply chain management
- Information systems

SO HOW ARE MERCHANTS EVALUATED?

ROI and GMROI Asset Productivity Measures

GMROI = Gross Margin Percent x sales-to-stock ratio

$$= \frac{\text{gross margin}}{\text{net sales}} \times \frac{\text{net sales}}{\text{avg. inventory at cost}}$$

$$= \frac{\text{gross margin}}{\text{avg. inventory at cost}}$$

Inventory Turnover = (1 – Gross Margin Percent) x sales-to-stock ratio

Strategic Corporate Level Return on Assets = $\frac{\text{Net Profit}}{\text{Total Assets}}$

Merchandise Management Level GMROI = $\frac{\text{Gross Margin}}{\text{Avg. Inventory at Cost}}$

Measuring Sales-to-Stock Ratio

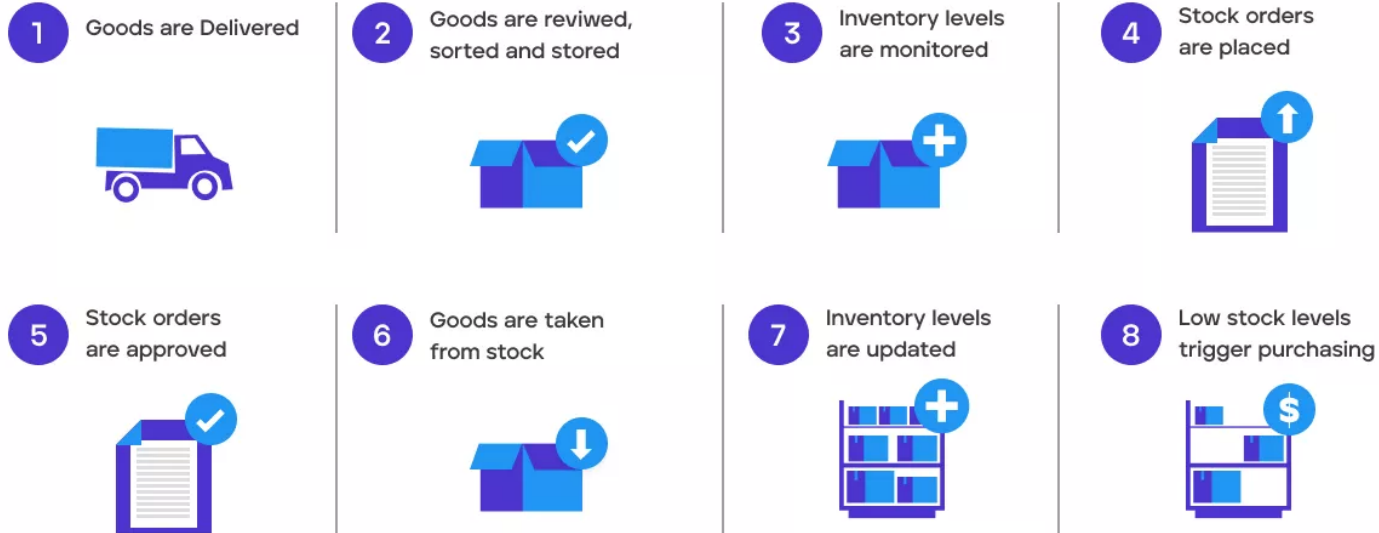
$$\text{Sales-to-Stock Ratio} = \frac{\text{Net Sales}}{\text{Average Inventory at Cost}}$$

If the sales-to-stock ratio for a three-month season is 2.3, the annual sales-to-stock ratio will be 9.2

What Is Inventory Management?

Inventory management helps companies identify which and how much stock to order at what time to ensure there's always enough stock to fulfil customer orders

Inventory Management Process



Core inventory management techniques include:

Inventory Control

Performing an ABC analysis

Pareto Principle states that 80% of the sales volume gets generated from the top 20% of the items.

It says that in any group, there are significant few and insignificant many. It is also known as the 80/20 rule.



Analysing Merchandise Management Performance

1. Sell through analysis :-

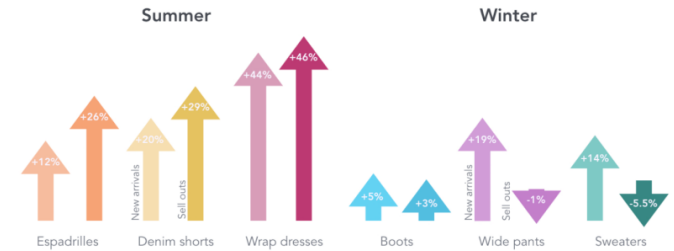
Let's assume you received 100 t-shirts for the month of April and you managed to sell 20 t-shirts.

Therefore, your sell-through rate for the month of April is 20%

Increase sell through Rate:-

Kitting-bundling the low sell-through with products with a high sell one

$$\text{Sell through rate} = \frac{\text{number of units sold}}{\text{number of units received}} \times 100$$

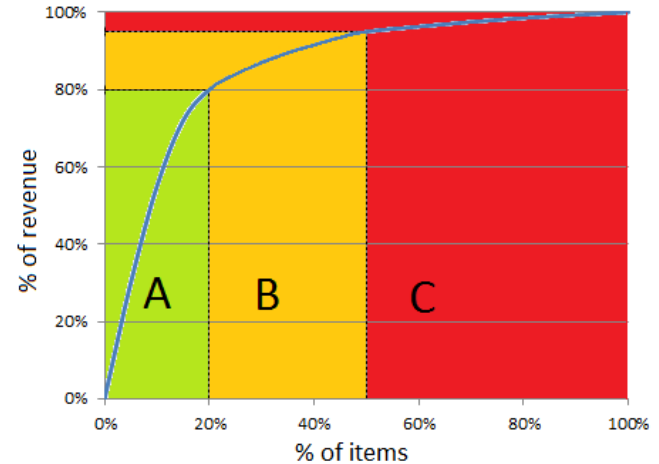


Performing an ABC analysis

An ABC analysis identifies the performance of individual SKUs in the assortment plan.

Rank - orders merchandise by some performance measure determine which items

A items: 20% of SKUs, represent 80% of sales
B items: 30% of SKUs, represent 15% of sales
C items: 50% of SKUs, represent 5% of sales



Performing an ABC analysis – Furniture store

Step 1: Multiply the total number of items by the cost of each unit to find the annual usage value.

Products	Annual Number of Items Sold	Costs per unit	Annual Usage Value
Beds	5000	\$80	\$400,000
Chairs	1500	\$20	\$30,000
Coffee Tables	700	\$40	\$28,000
Desks	600	\$40	\$30,000
Ottomans	500	\$30	\$15,000
Dining Table	700	\$50	\$35,000
Book Cases	600	\$15	\$9,000
Office Chairs	10,000	\$20	\$200,000
Wardrobes	600	\$40	\$24,000
Computer Cabinet	700	\$30	\$21,000

Performing an ABC analysis

Step 2: After noting all the products of the inventory, it's time to list them in the descending order based on annual consumption value.

Products	Annual Number of Items Sold	Costs per unit	Annual Usage Value
Beds	5000	\$80	\$400,000
Office Chairs	10,000	\$20	\$200,000
Dining Table	700	\$50	\$35,000
Chairs	1500	\$20	\$30,000
Desks	600	\$40	\$24,000
Coffee Tables	700	\$40	\$28,000
Wardrobes	600	\$40	\$24,000
Computer Cabinet	700	\$30	\$21,000
Ottomans	500	\$30	\$15,000
Book Cases	600	\$15	\$9,000

Performing an ABC analysis

Step 3: Sum up and add the total number of units sold and the annual consumption value.

Products	Annual Number of Items Sold	Costs per unit	Annual Usage Value
Beds	5000	\$80	\$400,000
Office Chairs	10,000	\$20	\$200,000
Dining Table	700	\$50	\$35,000
Chairs	1500	\$20	\$30,000
Coffee Tables	700	\$40	\$28,000
Wardrobes	600	\$40	\$28,000
Desks	600	\$40	\$24,000
Computer Cabinet	700	\$30	\$21,000
Ottomans	500	\$30	\$15,000
Book Cases	600	\$15	\$9,000
Total	20,900		771,000

Performing an ABC analysis

Step 4: Find out the cumulative percentage of products sold along with the percentage of annual consumption value.




Products	Annual Number of Items Sold	Costs per unit	Annual Usage Value	Percentage of Annual Units Sold	Percentage of Annual Consumption Value
Beds	5000	\$80	\$400,000	23.80	52.00
Office Chairs	10,000	\$20	\$200,000	47.61	27.00
Dining Table	700	\$50	\$35,000	3.33	5.06
Chairs	1500	\$20	\$30,000	7.14	4.15
Desks	700	\$40	\$28,000	3.33	4.03
Coffee Tables	600	\$40	\$24,000	2.85	2.08
Wardrobes	600	\$20	\$24,000	2.85	2.08
Computer Cabinet	700	\$30	\$21,000	3.33	2.02
Ottomans	500	\$30	\$15,000	2.38	1.05
Book Cases	600	\$15	\$9,000	2.85	1.01
Total	20,900		\$771,000		

Performing an ABC analysis

Step 5: In the last step, split the data and numbers into the three A, B, and C categories. Remember, it's essential to set the data in the ratio of 80:15:5.

The table shows that items listed in Category A generate approximately 79% of annual consumption value, B yields 13%, while C generates 8% revenue.

	Products	Annual Number of Items Sold	Costs per unit	Annual Usage Value	Percentage of Annual Units Sold	Percentage of Annual Consumption Value
79%	Beds	5000	\$80	\$400,000	23.80	52.00
	Office Chairs	10,000	\$20	\$200,000	47.61	27.00
13%	Dining Table	700	\$50	\$35,000	3.33	5.06
	Chairs	1500	\$20	\$30,000	7.14	4.15
	Desks	700	\$40	\$28,000	3.33	4.03
8%	Coffee Tables	600	\$40	\$24,000	2.85	2.08
	Wardrobes	600	\$20	\$24,000	2.85	2.08
	Computer Cabinet	700	\$30	\$21,000	3.33	2.02
	Ottomans	500	\$30	\$15,000	2.38	1.05
	Book Cases	600	\$15	\$9,000	2.85	1.01
	Total	20,900		\$771,000		

 A category  B category  C category

Performing an ABC analysis

THE ESSENTIAL FEATURES

Category A

It involves Precise and Exact Estimation of Inventory Value.

The senior managers and professionals are involved in managing the inventory.

It requires very strict degree of control.

Category B

It involves an approximate estimation of inventory value.

Mid-level professionals and managers are assigned to manage this category of inventory.

It requires moderate degree of control.

Category C

It requires minimal or no estimation of inventory value.

This category is usually managed by the junior staff as it does not require much experience.

It requires minimal or limited degree of control.

Performing an ABC analysis

ABC analysis excel exercise video here

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