UAsite15

Business 101

A business coaching book for high school students

Compiled by Haoyu Zhang

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To the Reader

Welcome to **Business 101**.

This textbook is designed for students who are beginning to explore business analysis, marketing, finance, valuation, ESG, and case competition strategy. It is written especially for high school students, with the goal of making business concepts clear, structured, and applicable.

Business learning should not stop at memorizing frameworks. A strong business thinker must be able to identify problems, analyze markets, evaluate financial logic, design strategies, and communicate ideas effectively. For this reason, the course is organized around the practical logic of business decision-making: Problem → Analysis → Strategy → Finance → Pitch.

Some chapters introduce advanced concepts such as ROE, CAPM, DCF, WACC, Sharpe Ratio, and the Capital Allocation Line. These sections are marked as more challenging or elective, allowing students to approach them according to their own learning level. The purpose is not to overwhelm beginners, but to provide a pathway for deeper exploration.

Practice problems and online answer explanations are included in selected chapters. Readers are encouraged to complete the questions independently before reviewing the answers, since the real value of business education lies not only in getting the correct result, but in understanding the reasoning behind it.

This textbook is not intended to cover every topic in business. Instead, it aims to provide a clear, practical, and student-friendly foundation for business clubs, classroom learning, and competition preparation.

Business is not only a subject. It is a way of asking better questions, making better decisions, and turning ideas into action.

Haoyu Zhang
Compiler of *Business 101*
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Please read Appendix IV before you use the book

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Business 101

A business report is not an academic paper; marketing equals storytelling, data, and an action plan.

Standard Commercial Match Content

1) Core Structure of the Competition:

Problem → Analysis → Strategy → Finance → Pitch

2) Goal Summarized in a Single Sentence:

Within three hours, transform the participants into the decision-makers of this company.

3) Activity:

Divide into groups of 4–5 people (CEO, Marketing Officer, Finance Officer, Analyst, Designer).

Distribute Case Study Cards (example):

Oatly (Brand Trust and Profitability Challenges)

Luckin Coffee (Challenges in Digitalization and Internationalization)

BYD (International Expansion of New Energy Vehicles)

Netflix (Reinventing Growth Amidst Subscription Fatigue)

Understanding the Problem + Positioning the Market

Do remember: Identifying a problem is not the same as discovering an opportunity.

1) Use a Problem Tree to define the core issue:

Declining sales" is not the problem—it is a result; the true problem may be "vague positioning" or "outdated distribution channels.

2) STP（Segmentation, Targeting, Positioning）

Steps	Meaning	Subject
S — Segmentation	market segmentation	Different people buy the same thing for completely different motives.
T — Targeting	Target Market	Choose the most valuable customers—not the most numerous ones.
P — Positioning	Brand Positioning	Tell the world who you are—in a single sentence.

Write a single Problem Statement:

Our company's main challenge is ____ because ____.

Describe your target customer profile in three sentences (age, needs, motivations).

Positioning Axis (Price vs. Quality, or Innovation vs. Tradition)

Example:

Nike: "Just Do It." → Emotional positioning (Courage, Self-improvement)

Tesla: "Accelerate the world's transition to sustainable energy." → Mission positioning (Future technology)

IKEA: "Democratic Design." → Value positioning (Affordable + Design)

Basic Marketing Strategies

1) 4Ps Framework

Element	Prompt	Example(Oatly)
Product	What is the core value we sell?	Health + Sustainability + Taste

Price	How should we set our pricing to align with our positioning?	"Light Premium Range: ¥25–30"
Place	Channel Strategy?	Convenience Store + E-commerce + Coffee Shop Collaboration
Promotion	How do we reach our customers?	KOL + Social Media Challenge

Lightweight Financial Analysis

The Three Financial Questions

Where does revenue come from? (Revenue Streams)

→ Unit Price × Projected Sales Volume = Revenue

Where are costs incurred? (Cost Structure)

→ Raw Materials + Marketing + Channels + Personnel

What is the logic behind gross profit? (Profitability)

→ Revenue - Costs = Gross Profit

SWOT Analysis

Internel Element	Outside Elememt
Strength	**Opportunity**
Weakness	**Threat**

Do remember: SWOT is not merely a listing of characteristics, but a causal map designed to serve strategy.

Each S, W, O, and T must be capable of explaining a strategic decision.

Answer Template: ***We will use our [strength] to leverage [opportunity] by [action]***

Practise

Write down three marketing strategies.

Case Study: Luckin Coffee's Strategic Dilemma Following Its Resurgence

Goal: Understand the Logical Conflicts Within SWOT

Dimension	**Contents**
Strength	Leading in digital marketing, characterized by a lean cost structure, and consistently launching blockbuster products (e.g., the Coconut Latte).
Weakness	Damaged Brand Reputation, Weak Overseas Presence, Homogenized Competition
Opportunity	China's coffee market is growing rapidly, and its lower-tier markets offer immense potential.
Threat	Starbucks' Recovery, Surge in Local Brands, Raw Material Volatility

For example: The **Strength** of being *digitally robust* can counter the **Threat** of *intense market competition*; conversely, the **Weakness** of damaged reputation could undermine the **Opportunity** presented by young consumers' pursuit of brand cachet.

Think: If you were Luckin Coffee's CMO, which specific Weakness would you prioritize fixing? Why?

Case Study: Oatly

Dimension	Content
Strength	Distinctive brand philosophy (eco-friendly, health-conscious), successful early-stage market education, and high brand premium associated with Western origins.
Weakness	High costs, limited production capacity, excessive marketing, and financial losses.
Opportunity	Global plant-based market expansion, rising acceptance in the Chinese market, and support from ESG investment.
Threat	New Competitors (Alpro, Califia), Declining Consumer Trust, Supply Chain Risks

Deriving Strategies from SWOT:

Employ **SO Strategies** (Strengths × Opportunities) → Consolidate Growth

Employ **ST Strategies** (Strengths × Threats) → Defend Against Competition

Employ **WO Strategies** (Weaknesses × Opportunities) → Enhance Potential

Employ **WT Strategies** (Weaknesses × Threats) → Control Risks

Strategy Types	Strategic Examples
SO	Leveraging the Brand's Eco-friendly Image to Expand into Asia's High-End Market
ST	Building Trust and Fending Off Competition Through Transparent Factory PR
WO	Lowering the cost structure and entering the budget market through local contract manufacturing.
WT	Temporarily suspend expansion and focus on core markets to restore profitability.

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Market Potential Share

How many people will actually buy my services and products

Core Definition

Market Potential Share (MPS): *Refers to the maximum sales proportion that an enterprise could theoretically capture within the total market demand.*

It reflects the enterprise's comprehensive competitiveness across areas such as branding, quality, pricing, and service.

$$\text{MPS} = \frac{\text{Firm's Potential Demand}}{\text{Total Market Demand}}$$

In business analysis or simulation models, MPS serves as the critical intermediate variable connecting ***market demand*** with ***corporate sales revenue***.

$$\textit{Company Sales} = \textit{Total Market Demand} \times \textit{MPS}$$

1) The meaning of MPS:

Effect	Illustrate
Measuring Competitiveness	High MPS → Market Preference for Enterprise Products
Guidance Strategies	Adjust prices, advertising, quality, and other factors to increase market share.
Model Hub	Determines the volume of sales an enterprise can capture from the total market.

2) Calculation Method

(I)Marketing Mix Function

$$MPS = w_1 B + w_2 Q + w_3 P + w_4 M + w_5 S + w_6 R$$

Symbol	Meaning	Example
B	Brand	Brand Promotion and Awareness
Q	Quality	Product Performance, User Satisfaction
PA	Price Attractiveness	Value-for-money, price competitiveness, pricing-positioning fit
M	Marketing	Advertising, Promotion, and Social Media Exposure
S	Service	After-sales Service, Customer Experience, and Employee Morale
R	Reputation	CSR, Environmental Protection, and Social Reputation
w_1–w_6	Weight	Each factor carries a specific weight, and their sum equals 1.

Upon completion of the calculation, standardization is required. Ensure that the sum of MPS for all enterprises equals 1 (i.e., the market is 100% allocated)

$$MPS_i = \frac{MPS_i}{\sum MPS_i}$$

(II) Commonly Used Formulas for Business Simulation Models

$$MPS_t = \frac{\alpha B_t + \beta Q_t + \gamma M_t + \delta S_t - \eta P_t}{\Sigma(\alpha B + \beta Q + \gamma M + \delta S - \eta P)}$$

Symbol	Meaning
(Bt): Brand Index	Stronger brand strength leads to a higher MPS
(Qt): Quality Index	Improved product quality increases MPS
(Mt): Marketing Investment	Advertising and promotion increase MPS
(St): Service / Morale	Better service experience improves MPS
(Pt):Price Attractiveness	could be positive and negative
((alpha, beta, gamma, delta, eta)): Sensitivity Coefficients	The market's degree of emphasis on each factor

Example: Coffee Market
Total Market Demand = 100,000 cups
There are three companies: A, B, and C
Factor Weights = Brand: 0.3, Quality: 0.25, Price: 0.2, Marketing: 0.15, Service: 0.1

Calculation:

$$MPS_A = 0.3(80) + 0.25(85) + 0.2(70) + 0.15(90) + 0.1(80) = 80.25$$

$$MPS_B = 0.3(60) + 0.25(80) + 0.2(90) + 0.15(75) + 0.1(70) = 75.75$$

$$MPS_C = 0.3(75) + 0.25(75) + 0.2(75) + 0.15(60) + 0.1(65) = 70.25$$

Normalization:

$$Total = 80.25 + 75.75 + 70.25 = 226.25$$

$$MPS_A = 0.355, \quad MPS_B = 0.334, \quad MPS_C = 0.310$$

Corresponding Sales:

$$Sales_A = 100{,}000 \times 0.355 = 35{,}500 \text{ cups}$$

$$Sales_B = 33{,}400$$

$$Sales_C = 31{,}000$$

3)Why do high prices often reduce Price Attractiveness and MPS?

High prices do not automatically reduce market share. If a company has strong brand power, superior quality, or luxury positioning, consumers may still accept a higher price.

However, for most ordinary products, excessively high prices reduce **price attractiveness** because consumers may shift toward products with better value-for-money. In the MPS model, this effect is reflected through the **Price Attractiveness Score, PA**. A company with a high price but weak brand or quality will usually receive a lower PA score, which reduces its Competitiveness Score and therefore lowers its final MPS.

In other words, price does not affect MPS mechanically. It affects MPS through consumers' perception of value.

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Effective Capacity and Cost Structure*

Understanding production limits and operational costs

Key Concept

Effective Capacity refers to the actual production capacity a company can achieve under real-world conditions (employee morale, equipment condition, unforeseen events, etc.). ***Cost Structure*** describes how a company's unit production cost is affected by factors such as learning, efficiency, and warehousing.

Effective Capacity

$$C_t^{eff} = C_t \times (0.8 + \frac{Morale_t}{500}) \times Event_{cap}$$

Symbol	Meaning	Explanation
(Ct)	Theoretical Capacity	Maximum production capability of the equipment
(Morale_t)	Employee Morale	Higher morale leads to greater production efficiency
(Event_cap)	Random Event Factor	Production accidents or bonus events affect capacity

Higher morale improves employee efficiency (for example, increasing productivity from 80% to 95%).

If a sudden event occurs (such as machine maintenance), $Event_cap < 1$, will reduce production capacity.

* *This chapter is challenging and requires a certain level of business acumen and mathematical knowledge.*

Learning Rate

Learning rate λ represents a company's ability to reduce unit costs as it accumulates production experience.

Key Words You Should Know:

Symbol	Name	Meaning
(Cs)	Supplier base cost	Basic supply costs (high > medium > low)
(λ)	Learning rate	The speed at which unit costs decrease with the accumulation of experience
(ΣUt)	Cumulative output	Cumulative production
(Event$_{cost}$)	Cost disturbance coefficient	Rising raw material prices and supply chain fluctuations have led to increased costs.
(k$_c$)	Capacity utilization cost coefficient	Cost coefficient of capacity utilization (overuse will increase costs)
(W$_t$)	Warehouse expenditure	Warehousing expenses (improving efficiency can reduce unit costs)

1) Learning Curve Effect

$$c_{avg} = c_s \left(1 - \lambda \ln\left(1 + \frac{\sum U_t}{1000}\right)\right)$$

As cumulative output increases: Companies accumulate more production experience, employees become more skilled in operation,. Management and collaboration efficiency improves. Raw material waste and production errors decrease. Therefore, the average unit cost gradually decreases.

This model reflects:

Diminishing marginal learning effect

Companies benefit most from learning during the early expansion phase; as experience matures later, the rate of cost reduction gradually slows down.

2) Production Quantity

$$U_t = \min(D_t, C_t^{eff})$$

A firm's actual production is constrained by two factors:
Market demand and Effective capacity.

If market demand is insufficient, production is constrained by demand. If factory capacity is insufficient, production is constrained by capacity.

This model reflects the real-world constraints of: Supply and demand; Capacity bottlenecks; Factory operational limitations.

3) Average Cost Model

$$AvgCost_t = \left[c_s \left(1 - \lambda \ln\left(1 + \frac{\sum U_t}{1000}\right)\right)\right] \times (1 + Event_{cost}) + k_c \frac{U_t}{C_t} - \frac{W_t}{80000}$$

Model Explanation:
(I) Learning Curve Effect

$$c_s \left(1 - \lambda \ln\left(1 + \frac{\sum U_t}{1000}\right)\right)$$

(II) External event cost disturbance term

$$\times (1 + Event_{cost})$$

External events can impact a company's costs. For example: Rising raw material prices; supply chain disruptions; international trade frictions; increased transportation costs; unforeseen maintenance incidents.

(III)Capacity Utilization Pressure

$$k_c \frac{U_t}{C_t}$$

When a company is operating at near full capacity, operational pressure increases. Including: Rising overtime costs; Increased equipment wear and tear; Emerging bottleneck effects; Increased management complexity.

Higher capacity utilization rates may increase marginal production costs.

(IV) Employee morale and efficiency

$$-\frac{W_t}{80000}$$

Higher employee morale, better benefits, and organizational stability can improve productivity.

4) Practise

> Problem: A company has market demand $D_t = 900$, effective production capacity $C_t^{eff} = 800$, cumulative output $\sum U_t = 3000$, base supplier cost $c_s = 100$, learning rate $\lambda = 0.04$, external event cost shock $Event_{cost} = 0.10$, capacity pressure coefficient $k_c = 8$, total production capacity $C_t = 1000$, and workforce morale index $W_t = 40000$. Find the actual production quantity U_t and the average production cost $AvgCost_t$.

Please write your answer here:

Get Answer Here: https://www.uasite15.org/business-101/question-1

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Finance 101*

How money moves through my business and turns into profit

Financial Ratio Analysis

Financial ratios are used to evaluate a company's financial stability, leverage level, liquidity, and short-term repayment ability.

Symbol	Name	Meaning
(Debt\ Ratio)	Debt Ratio	The proportion of total assets financed through liabilities
(EM)	Equity Multiplier	Measures the degree of financial leverage
(Current\ Ratio)	Current Ratio	Measures short-term debt repayment ability using current assets
(Quick\ Ratio)	Quick Ratio	Measures short-term liquidity excluding inventory
(Cash\ Ratio)	Cash Ratio	Measures immediate repayment ability using only cash-type assets

1) Debt Ratio

$$Debt\ Ratio = \frac{Total\ Liabilities}{Total\ Assets}$$

Debt Ratio measures how much of a company's total assets are financed through debt.

Do Remember :

If the ratio is high: (1) Financial leverage is higher (2) Financial risk increases (3)Interest burden becomes heavier

If the ratio is low: (1)The company relies more on shareholder capital (2)Financial structure is generally more stable

Typical manufacturing firms often maintain debt ratios around: 0.4-0.6

* *This chapter may be quite challenging for beginners, but it still covers essential knowledge points for business studies.*

2) Equity Multiplier

$$Equity\ Multiplier = \frac{Total\ Assets}{Shareholders'\ Equity}$$

The Equity Multiplier is another measure of financial leverage.

If $EM = 2$, it means total assets are twice the amount of shareholder equity, implying that approximately half of the company's assets are financed by liabilities.

Do Remember:

Higher Equity Multipliers indicate:(1)Greater borrowing (2)Higher leverage (3)Higher financial risk

This ratio is commonly used in the DuPont Analysis framework, a detailed explanation will follow later:

$$ROE = Profit\ Margin \times Asset\ Turnover \times Equity\ Multiplier$$

where leverage amplifies Return on Equity (ROE).

3) Current Ratio

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

The Current Ratio measures whether a company can repay short-term liabilities using current assets such as: (1)Cash (2)Accounts Receivable (3)Inventory

When

$$Current\ ratio \geq 1.5$$

is often considered relatively safe.

Extremely high ratios may indicate inefficient asset utilization, Excess idle cash may reduce operational efficiency

4) Quick Ratio

$$Quick\ Ratio = \frac{Current\ Assets - Inventory}{Current\ Liabilities}$$

The Quick Ratio measures short-term repayment ability excluding inventory. Inventory is excluded because: It is less liquid, may require time to sell, and market prices may fluctuate. It focus on (1)immediate liquidity (2)highly liquid assets (3)financial flexibility.

If

$$Quick\ Ratio \geq 1.0$$

is considered financially healthy.

5) Cash Ratio

$$Cash\ Ratio = \frac{Cash + Cash\ Equivalents + Marketable\ Securities}{Current\ Liabilities}$$

The Cash Ratio only considers the company's most liquid assets.

Typical healthy ranges are:

$$\boldsymbol{0.2 - 0.5}$$

If the ratio is too high: Capital utilization efficiency may be low

If the ratio is too low: Liquidity risk may increase

6) Practise

UAsite15 group has the following financial information

Item	Amount
Total Assets	$1,200,000
Total Liabilities	$600,000
Shareholders' Equity	$600,000
Current Assets	$360,000
Current Liabilities	$200,000
Inventory	$80,000
Cash	$45,000
Cash Equivalents	$25,000
Marketable Securities	$30,000

Calculate the following financial ratios:

1. Debt Ratio
2. Equity Multiplier
3. Current Ratio
4. Quick Ratio
5. Cash Ratio

Then briefly explain whether the company's financial position appears stable.

Get Answer Here: https://www.uasite15.org/business-101/question-2

Profitability & Solvency

Profitability and solvency ratios are used to evaluate a company's ability to generate operating profit, repay interest obligations, and manage assets efficiently.

Symbol	Name	Meaning
EBIT	Earnings Before Interest and Taxes	Measures a company's core operating profit before interest and tax effects
Interest Coverage	Interest Coverage Ratio	Measures how many times a company's operating profit can cover interest expense
Inventory Turnover	Inventory Turnover Ratio	Measures how many times inventory is sold and replaced during a year
DSI	Days Sales of Inventory	Measures how many days inventory takes to be sold on average
Receivable Turnover Days	Accounts Receivable Turnover Days	Measures how quickly a company collects cash from customers

1) EBIT(Earnings Before Interest and Taxes.)

$$EBIT = Revenue - COGS - Operating\ Expenses$$

It measures the company's **core operating profitability** before considering capital structure and tax effects.

EBIT excludes: (1)Interest Expense (2)Income Tax Impact (3)Financing structure effects

A higher EBIT usually means the company has stronger operating performance.
A lower EBIT may indicate weak profitability, rising costs, or declining sales efficiency.

EBIT is also used to calculate the **Interest Coverage Ratio**.

2) Interest Coverage Ratio

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

The Interest Coverage Ratio measures a company's ability to pay interest using its operating profit.

It tells investors **how many times the company's earnings can cover its interest payments**.

Do Remember:

If the ratio is high:

1. The company has stronger debt repayment ability
2. Interest pressure is lower
3. Financial risk is relatively lower

If the ratio is low:

1. The company may struggle to pay interest
2. Debt pressure is heavier
3. Solvency risk increases

Generally:

$$Interest\ Coverage \geq 3$$

is often considered relatively safe.

When:

$$Interest\ Coverage < 1.5$$

the company may not generate enough profit to comfortably cover interest expense, which indicates higher financial risk.

Investors often use this ratio to judge whether a company's debt burden is too heavy.

3) Inventory Turnover Ratio

$$Inventory\ Turnover = \frac{COGS}{Average\ Inventory}$$

Inventory Turnover measures how many times a company sells and replaces its inventory during a year.

It reflects the speed of inventory movement and the efficiency of asset utilization.

A higher Inventory Turnover usually means:

1. Inventory moves quickly
2. Less capital is tied up in unsold goods
3. Operating efficiency is stronger

However, an extremely high Inventory Turnover may also indicate:

1. Insufficient inventory
2. Possible stockout risk
3. Lost sales opportunities

A lower Inventory Turnover may suggest slow sales, excessive inventory, or weak demand.

4) Receivable Turnover Days

$$Receivable\ Turnover\ Days = \frac{Average\ Accounts\ Receivable \times 365}{Revenue}$$

Receivable Turnover Days measures how quickly a company collects cash from customers.

It reflects the company's collection efficiency and cash recovery speed.

A shorter Receivable Turnover Days usually means: Customers pay faster, Cash collection is more efficient, Working capital pressure is lower.

A longer Receivable Turnover Days may indicate: Accounts receivable are accumulating, Customers are paying slowly, Bad debt risk may increase

This ratio is especially important for companies that sell products or services on credit.

5) DSI (Days of Inventory Turnover)

$$DSI = \frac{Average\ Inventory}{COGS} \times 365$$

DSI means **Days Sales of Inventory**.

It measures how many days, on average, it takes for a company to sell its inventory.

A lower DSI is usually better because

1. Inventory is sold faster
2. Cash returns more quickly
3. Less money is locked in inventory

A higher DSI may indicate:

1. Slow inventory movement
2. Weak sales efficiency
3. Possible overstocking risk

Do Remember: If Inventory Turnover increases, DSI usually decreases.

Capital Structure & Leverage

These reflect the company's leverage level and financial risk.

Indicator	Formula	What It Reflects	Ideal Value / Direction
Debt Ratio	Debt / Assets	Leverage risk	< 0.6 is relatively healthy
D/E Ratio	Debt / Equity	Financial leverage	Moderate is preferred; varies by industry
Equity Multiplier	Assets / Equity	Leverage magnification effect	2–3 is common

1) Debt Ratio

$$Debt\ Ratio = \frac{Total\ Liabilities}{Total\ Assets}$$

It measures how much of the company’s assets are financed by debt.

A higher Debt Ratio usually means the company relies more heavily on borrowed money, which increases financial risk.
A lower Debt Ratio may indicate a more stable capital structure and less dependence on external financing.

Debt Ratio is commonly used to evaluate a company’s **financial leverage** and overall solvency risk.

2) Debt-to-Equity Ratio

$$D/E\ Ratio = \frac{Total\ Liabilities}{Total\ Equity}$$

It measures how much of the company's assets are financed by debt.

A higher Debt Ratio usually means the company relies more heavily on borrowed money, which increases financial risk.
A lower Debt Ratio may indicate a more stable capital structure and less dependence on external financing.

Debt Ratio is commonly used to evaluate a company's **financial leverage** and overall solvency risk.

If the D/E Ratio is greater than 1, the company has more liabilities than shareholders' equity. This usually indicates higher leverage and higher financial risk.

If the D/E Ratio is less than 1, the company uses more equity than liabilities. This may suggest a more conservative financial structure.

For example, if a company has total liabilities of $600,000 and shareholders' equity of $400,000:

$$D/E\ Ratio = \frac{600,000}{400,000} = 1.5$$

This means the company has $1.50 of liabilities for every $1 of shareholder equity.

4) Equity Multiplier

It measures how many dollars of assets are supported by each dollar of shareholders' equity.

$$Equity\ Multiplier = \frac{Total\ Assets}{Total\ Equity}$$

A higher Equity Multiplier means the company uses more debt financing, which can increase return on equity but also raises financial risk.

A lower Equity Multiplier suggests the company depends more on shareholders' equity and has lower leverage.

Accounting 101

1)Two Major Accounting Standards

International Financial Reporting Standards(IFRS)
Used widely outside the United States, especially in Europe, Asia, and many international markets.

Generally Accepted Accounting Principles(GAAP)
The main accounting standard used in the United States.

2) Core Accounting Principles

(I)Full Disclosure Principle

All relevant and necessary information must be clearly disclosed so users can properly understand the company's financial statements.

Example:
Unusual or non-recurring events, such as lawsuits, asset impairments, or one-time losses, should be reported separately.

(II) Materiality Principle

Only information that could influence the decision of a reasonable user needs to be disclosed. Trivial details may be omitted.
A company does not need to separately report the purchase of a few office pens, but it must disclose a major lawsuit.

(III)Conservatism Principle

When there is uncertainty, accountants should choose the option that results in lower profit or lower asset valuation.

Possible Loss → Recognize earlier

Possible Gain → Wait until realized

Do Remember:

If inventory loses value, the company should record the loss immediately. However, the company should not record a future gain before it is actually earned.

(IV)Going Concern Principle

The business is assumed to continue operating indefinitely unless there is strong evidence that it will shut down.
For example, a machine is valued based on normal business use, not based on liquidation value, unless the company is expected to close.

(V)Matching Principle
Expenses incurred in order to generate revenue within the same accounting period must be recognized and recorded in the same period as the revenue they generate.

The matching principle emphasizes cause and effect relationship. If an expense is incurred to pursue a certain revenue, regardless of whether money has actually been spent, they must appear together on the written financial statements.

Fixed Asset Depreciation
Let's say UAsite15 team spends $100,000 on a production machine that will last for 5 years. This machine will produce products and generate revenue for the company over the next 5 years.

Incorrect : Record the entire $100,000 as an expense in the first year. This will lead to a huge loss in the first year and inflated profits in the following four years.

Correct(Matching Principle): Spread the $100,000 over 5 years, recording $20,000 in depreciation expense each year. This way, the annual expense is matched with the revenue generated by the machine in that year.

Prepaid Expenses

Suppose a company prepays $12,000 in insurance premiums for the entire next year in December. When the payment is made in December, this money is recorded as an asset (Prepaid Insurance). In the following year, $1,000 of insurance expenses will be recognized each month as coverage provided during that month, supporting the company's operations.

(VI)Revenue Recognition Principle / Accrual Principle

Revenue is recorded when it is earned, not necessarily when cash is received.
Expenses are recorded when they are incurred, not necessarily when cash is paid.

If a company delivers a product today but receives payment next week, the revenue is recorded today.

(VII) Consistency Principle

A company should use the same accounting methods from one period to another so that financial statements remain comparable.
If a company uses straight-line depreciation this year, it should not randomly switch to accelerated depreciation next year without a valid reason.

(VIII) Objectivity Principle

Financial information should be supported by unbiased evidence and documentation.

Asset Measurement Methods

1) Asset Value

Asset Value

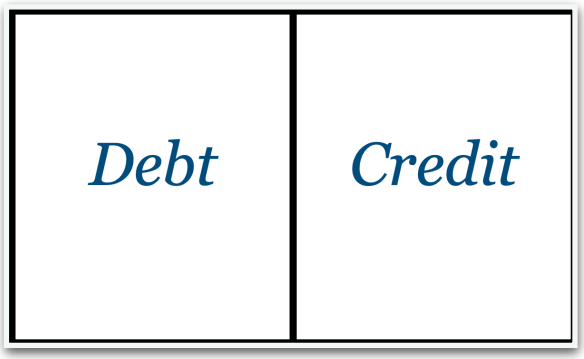
- Historical Cost: The price paid when purchasing the asset
- Current Cost: The cost of purchasing similar assets now
- Realisable Value: Expected selling price minus cost of goods sold
- Present Value: Value of future cash flows
- Fair Value: Current price available for trading in the market

2) Debits and Credits

Do Remember: *Borrowing on the left and lending on the right*

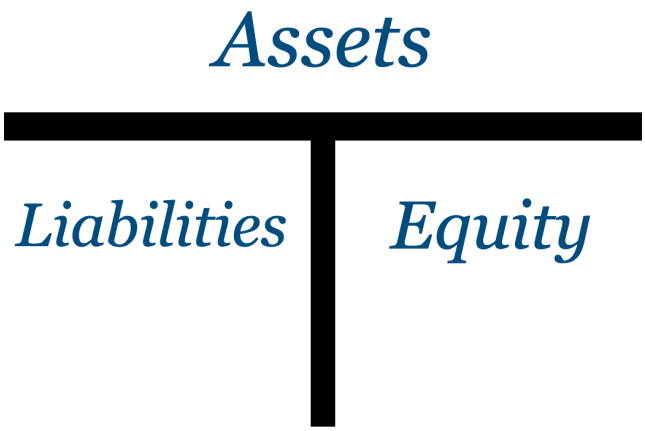
Debits Increase: (1)Assets (2)Expenses

Credits Increase:(1)Liabilities (2)Revenue (3)Equity



3) Accounting Equation

$$Assets = Liabilities + Equity$$



T-shaped account diagram

Three major reports

1) Income Statement

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INCOME STATEMENTS

(In millions, except per share amounts)

Year Ended June 30,	2025	2024	2023
Revenue:			
Product	$ 63,946	$ 64,773	$ 64,699
Service and other	217,778	180,349	147,216
Total revenue	281,724	245,122	211,915
Cost of revenue:			
Product	13,501	15,272	17,804
Service and other	74,330	58,842	48,059
Total cost of revenue	87,831	74,114	65,863
Gross margin	193,893	171,008	146,052
Research and development	32,488	29,510	27,195
Sales and marketing	25,654	24,456	22,759
General and administrative	7,223	7,609	7,575
Operating income	128,528	109,433	88,523
Other income (expense), net	(4,901)	(1,646)	788
Income before income taxes	123,627	107,787	89,311
Provision for income taxes	21,795	19,651	16,950
Net income	$ 101,832	$ 88,136	$ 72,361
Earnings per share:			
Basic	$ 13.70	$ 11.86	$ 9.72
Diluted	$ 13.64	$ 11.80	$ 9.68
Weighted average shares outstanding:			
Basic	7,433	7,431	7,446
Diluted	7,465	7,469	7,472

This is Microsoft's Income Statement from one year.

The primary purpose of an income statement is to communicate to stakeholders the company's profitability and details of its business activities. It also provides detailed information about the company's internal operations and can be used for comparisons between different industries and companies. By understanding the revenue and expense details in the income statement, investors can grasp the fundamental reasons for a company's profitability.

Its core logic is:

$$Revenue - Expenses = Profit$$

In simple terms, it shows how much money the company earned, how much it spent, and how much was left.

Item	Meaning
Revenue / Sales	Money earned from selling goods or services
Cost of Goods Sold, COGS	Direct cost of producing or purchasing the goods sold
Gross Profit	Revenue minus COGS
Operating Expenses	Business expenses such as salaries, rent, marketing, and management costs
Operating Income / EBIT	Profit from the company's main business operations
Interest Expense	Interest paid on debt
Taxes	Taxes paid to the government
Net Income	Final profit after all costs and expenses

(I) Key Formulas

Gross Profit = Revenue - COGS

Operating Income / EBIT = Gross Profit - Operating Expenses

Net Income = Revenue - All Expenses

For example:

Item	Amount
Revenue	$1,000,000
COGS	$400,000
Gross Profit	$600,000

Operating Expenses	$300,000
Operating Income / EBIT	$300,000
Interest Expense	$50,000
Taxes	$50,000
Net Income	$200,000

This means the company ultimately made a profit of $200,000.

(II) What should you focus On?

First, check whether **revenue is growing**.
Revenue growth may suggest that the company's market is expanding.

Second, check whether the **gross margin is healthy**.
A high gross margin means the product or service has strong earning power.

Third, check whether **net income is positive**.
A positive net income means the company is profitable. A negative net income means the company is losing money.

2) Balance Sheet

A balance sheet shows a company's financial position at a specific point in time.

Apple Inc.

CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)
(In millions, except number of shares, which are reflected in thousands, and par value)

	September 28, 2024	September 30, 2023
ASSETS:		
Current assets:		
Cash and cash equivalents	$ 29,943	$ 29,965
Marketable securities	35,228	31,590
Accounts receivable, net	33,410	29,508
Vendor non-trade receivables	32,833	31,477
Inventories	7,286	6,331
Other current assets	14,287	14,695
Total current assets	152,987	143,566
Non-current assets:		
Marketable securities	91,479	100,544
Property, plant and equipment, net	45,680	43,715
Other non-current assets	74,834	64,758
Total non-current assets	211,993	209,017
Total assets	$ 364,980	$ 352,583
LIABILITIES AND SHAREHOLDERS' EQUITY:		
Current liabilities:		
Accounts payable	$ 68,960	$ 62,611
Other current liabilities	78,304	58,829
Deferred revenue	8,249	8,061
Commercial paper	9,967	5,985
Term debt	10,912	9,822
Total current liabilities	176,392	145,308
Non-current liabilities:		
Term debt	85,750	95,281
Other non-current liabilities	45,888	49,848
Total non-current liabilities	131,638	145,129
Total liabilities	308,030	290,437
Commitments and contingencies		
Shareholders' equity:		
Common stock and additional paid-in capital, $0.00001 par value: 50,400,000 shares authorized; 15,116,786 and 15,550,061 shares issued and outstanding, respectively	83,276	73,812
Accumulated deficit	(19,154)	(214)
Accumulated other comprehensive loss	(7,172)	(11,452)
Total shareholders' equity	56,950	62,146
Total liabilities and shareholders' equity	$ 364,980	$ 352,583

This is Apple's balance sheet for 2024.

The core formula is:

$$Assets = Liabilities + Equity$$

This means that everything a company owns must be funded either by borrowed money or by shareholders' money.

A sheet could help you to understand

Category	Meaning
Assets	Resources owned by the company
Liabilities	Debts and obligations owed by the company
Equity	The shareholders' ownership in the company

(I) Assets

Assets are resources that the company owns and expects to bring future economic benefits.

Common assets include:

Item	Meaning
Cash	Money the company has
Accounts Receivable	Money customers owe the company
Inventory	Goods the company plans to sell
Property, Plant & Equipment, PP&E	Buildings, machines, and equipment
Intangible Assets	Non-physical assets such as patents, trademarks, and goodwill

(II)Liabilities

Liabilities are obligations the company must pay in the future.

Common liabilities include:

Item	Meaning
Accounts Payable	Money the company owes suppliers
Short-term Debt	Debt due within one year
Long-term Debt	Debt due after more than one year
Accrued Expenses	Expenses already incurred but not yet paid

(III)Equity

Equity represents the part of the company that truly belongs to shareholders after liabilities are deducted.

Common equity items include:

Item	Meaning
Common Stock	Shares issued to shareholders
Additional Paid-in Capital	Extra capital contributed by shareholders
Retained Earnings	Profits kept inside the company instead of being paid out as dividends

Having a lot of assets isn't necessarily a good thing; you need to look at the quality of those assets. If inventory can't be sold and accounts receivable can't be collected, the asset figures may be inflated. At the same time, excessively high debt indicates significant financial risk for the company. Please remember that a company with profits but no cash can still go bankrupt.

(IV)Shareholder Equity

Shareholder equity is the money attributable to the owners of a business or its shareholders. It is also known as net assets, as it represents the total assets of a company minus its liabilities, or the debt it owes to non-shareholders.

Retained earnings are the net earnings a company either reinvests in the business or uses to pay off debt. The remaining amount can be distributed to shareholders in the form of dividends.

Treasury stock is the stock a company has repurchased. It can be sold at a later date to raise cash, or even reserved to repel a hostile takeover.

Some companies issue preferred stock, which will be listed separately from common stock under this section. Preferred stock is assigned an arbitrary par value (as is common stock, in some cases) that has no bearing on the market value of the shares. The common stock and preferred stock accounts are calculated by multiplying the par value by the number of shares issued.

Additional paid-in capital or capital surplus represents the amount shareholders have invested in excess of the common or preferred stock accounts, which are based on par value rather than market price. Shareholder equity is not directly related to a company's market capitalization. The latter is based on the current price of a stock, while paid-in capital is the sum of the equity that has been purchased at any price.

(V)limitation

While the balance sheet is invaluable information for investors and analysts, it also has limitations. Many financial ratios reference data from the balance sheet, income statement, and cash flow statement to provide a more comprehensive picture of a company's performance.

Another limitation of the balance sheet is its limited timeframe. This financial statement only reflects a company's financial position on a specific date. It's difficult to judge a company's health solely based on the balance sheet. For example, suppose a company reports having $1 million in cash at the end of the month. However, without context, benchmarks, historical cash balances, and an understanding of industry operating needs, simply knowing how much cash a company has is far from sufficient.

Different accounting systems and methods of handling depreciation and inventory can also affect the figures on the balance sheet. Therefore, management can manipulate the data to make it appear more favorable. Always carefully read the notes to the balance sheet to determine the accounting system the company uses and look for any suspicious points.

Finally, the preparation of the balance sheet is also subject to many professional judgments that can significantly impact the reporting. For example, accounts receivable must be continuously assessed for impairment and adjusted to reflect potential bad debts. Since the actual amount of accounts receivable received by the company cannot be predicted, the company must make an estimate and reflect the best estimate in the balance sheet.

3) Cash Flow Statement

The cash flow statement shows a company's cash inflows and outflows.

It answers the question: *Has the company actually received any money?* Net Income on the income statement is not equal to cash. This is because the company may have recognized revenue, but the customer may not have paid yet; or it may have purchased equipment, resulting in cash outflow, but the expense may not all appear on the income statement at once.

Walmart Inc.
Consolidated Statements of Cash Flows

(Amounts in millions)	Fiscal Years Ended January 31, 2025	2024	2023
Cash flows from operating activities:			
Consolidated net income	$ 20,157	$ 16,270	$ 11,292
Adjustments to reconcile consolidated net income to net cash provided by operating activities:			
Depreciation and amortization	12,973	11,853	10,945
Investment (gains) and losses, net	878	3,193	1,683
Deferred income taxes	(635)	(175)	449
Other operating activities	2,889	2,642	1,919
Changes in certain assets and liabilities, net of effects of acquisitions and dispositions:			
Receivables, net	(1,106)	(797)	240
Inventories	(2,755)	2,017	(528)
Accounts payable	3,228	2,515	(1,425)
Accrued liabilities	379	(1,324)	4,393
Accrued income taxes	435	(468)	(127)
Net cash provided by operating activities	36,443	35,726	28,841
Cash flows from investing activities:			
Payments for property and equipment	(23,783)	(20,606)	(16,857)
Proceeds from the disposal of property and equipment	432	250	170
Proceeds from disposal of certain strategic investments	4,080	—	—
Payments for business acquisitions, net of cash acquired	(1,896)	(9)	(740)
Other investing activities	(212)	(922)	(295)
Net cash used in investing activities	(21,379)	(21,287)	(17,722)
Cash flows from financing activities:			
Net change in short-term borrowings	2,212	512	(34)
Proceeds from issuance of long-term debt	—	4,967	5,041
Repayments of long-term debt	(3,468)	(4,217)	(2,689)
Dividends paid	(6,688)	(6,140)	(6,114)
Purchase of Company stock	(4,494)	(2,779)	(9,920)
Dividends paid to noncontrolling interest	(576)	(763)	(444)

The following is Walmart's (WMT) cash flow statement for the fiscal year ending January 31, 2025. All amounts are in millions of US dollars.

Core Formula:

$$NCF = TCI - TCO$$

TCI = Total cash inflow

TCO= Total cash outflow

(I) Three Main Sections

Section	Meaning
Operating Cash Flow, CFO	Cash generated from the company's main business
Investing Cash Flow, CFI	Cash used for or generated from investments and long-term assets
Financing Cash Flow, CFF	Cash from borrowing, repaying debt, issuing stock, dividends, or share repurchases

CFO

Operating cash flow is usually the most important part of the cash flow statement. It shows whether the company's core business actually generates cash.

If a company has positive net income but negative operating cash flow for a long time, that is a warning sign. It may mean: (1) Customers have not paid yet. (2)Accounts receivable is too high. (3)The company looks profitable on paper but lacks real cash.(4)The business model requires constant cash spending.

CFI

Investing cash flow is mainly related to long-term assets and investments. The followings are usually counted in CFI (1)Purchase of Capital (2)Sale of Equipment (3) Acquisition (4) Investment in Securities *[sometimes, dogs in the company are counted as in Investment in Securities in practice]*

Negative investing cash flow is not always bad.

If a company is buying equipment, building factories, or expanding capacity, negative investing cash flow may show that the company is investing for future growth.

CFF

Financing cash flow (CFF)shows how the company raises money from investors or lenders, and how it returns money to them.

If financing cash flow is positive for a long time, the company may be relying heavily on debt or new stock issuance.

If financing cash flow is negative, the company may be repaying debt, paying dividends, or repurchasing shares.

(II)How to Analysis Cash Flow

Understanding the cash flow statement is only the first step. In finance, investors and analysts often go further by asking:

How much real cash can the business generate?

This is important because accounting profit can be influenced by non-cash items, revenue recognition, depreciation, and working capital changes. Cash flow analysis focuses on the company's real ability to generate cash, repay debt, reinvest in growth, and return money to shareholders.

Free Cash Flow, or FCF, measures how much cash a company has left after paying for the capital expenditures needed to maintain or grow the business.

The basic formula is:

$$FCF = Operating\ Cash\ Flow - Capital\ Expenditures$$

For example

Item	Amount
Operating Cash Flow	$500,000
Capital Expenditures	$200,000
Free Cash Flow	$300,000

$$FCF = \$500{,}000 - \$200{,}000 = \$300{,}000$$

This means the company generated $300,000 of free cash after paying for long-term investment needs.

FCF is one of the most important cash flow metrics because it shows how much cash the company can actually use.

Use of FCF	Meaning
Repay debt	Reduce financial risk
Pay dividends	Return cash to shareholders
Repurchase shares	Buy back company stock
Invest in growth	Open new stores, build factories, or develop new products
Hold cash	Strengthen the balance sheet

Positive FCF usually means the company is generating more cash than it needs for investment. Negative FCF is not always bad. A young or fast-growing company may have negative FCF because it is investing heavily in expansion. However, if a mature company has negative FCF for many years, that can be a warning sign.

Unlevered Free Cash Flow, or UFCF, measures the cash flow generated by the business before considering debt payments. UFCF shows how much cash the business itself produces, regardless of how it is financed. This is useful because two companies may have similar businesses but very different debt levels. UFCF allows analysts to compare them more fairly.

$$UFCF = EBIT \times (1 - Tax\ Rate) + Depreciation\ \&\ Amortization - CapEx - Change\ in\ Net\ Working\ Capital$$

Term	Meaning
EBIT	Earnings Before Interest and Taxes
Tax Rate	The company's tax rate
Depreciation & Amortization, D&A	Non-cash expenses added back
CapEx	Cash spent on long-term assets
Change in Net Working Capital, Change in NWC	Cash tied up in receivables, inventory, and payables

Do you remember what EBIT is?

These sections(1), (2), (9),(10) contains elective courses.

Valuation Special

So how do we truly integrate cash flow into business valuation models?

1)DCF Analysis

In the DCF (Discounted Cash Flow) model, UFCF (Unlevered Free Cash Flow) is the most crucial input. Its application follows a fundamental rule of the capital markets: the definition of cash flow must perfectly match the definition of the discount rate.

Since UFCF represents cash flows assuming the company has no debt and belongs to all capital providers (equity + debt), the corresponding discount rate must reflect the company's overall cost of capital.

The discount rate corresponding to UFCF must be calculated using **WACC** (Weighted Average Cost of Capital) and **CAPM**(Capital Asset Pricing Model).

$$WACC = \left(\frac{E}{V} \times R_e\right) + \left(\frac{D}{V} \times R_d \times (1 - t)\right)$$

E: Market Value of Equity

D: Market Value of Debt

V: Total Value of the Company(***E+D***)

Re: Cost of equity capital (usually calculated using the CAPM model)

Rd: Cost of debt capital (loan interest rate or bond yield)

t: Corporate income tax rate (because interest is tax-deductible, so int the formula, it is *1 - t*)

The core logic of using UFCF for DCF valuation consists of two phases: the forecast period and the perpetual period. The final calculated value is Enterprise Value (EV), not the direct stock value.

Step 1: Discounting the UFCF for the Forecast Period Forecast the company's UFCF for each of the next few years (typically 5-10 years), and then discount them to today using WACC.

$$Forecast\ present\ value\ = \sum_{t=1}^{n} \frac{UFCF_t}{(1 + WACC)^t}$$

Step 2: Calculate and Discount the Terminal Value (TV) Assuming the company enters a stable growth phase after the forecast period, calculate the perpetual value using the Gordon Growth Model, and then discount it back to today:

$$TV = \frac{UFCF_n \times (1 + g)}{WACC - g}$$

$$Future\ value\ Present\ value\ = \frac{TV}{(1 + WACC)^n}$$

Where g represents the perpetual growth rate, typically referenced to the long-term GDP growth rate, which is approximately 2% - 3%.

Step 3: Summing to Obtain Enterprise Value (EV) Add the present value of the projected period and the Present Value of Terminal Value to obtain the Enterprise Value:

$$EV = Forecast\ Value + Present\ Value$$

EV is not the total market capitalization of a stock. It is the value of the entire company. If you want to assess whether a stock is cheap or expensive, you also need to offload the debts.

Enterprise Value (EV)

- Total Debt
- Minority Interest
+ Cash & Cash Equivalents

= Equity Value / Total Market Capitalization

Divided by: Shares Outstanding

= Intrinsic Value per Share

2)Capital Asset Pricing Model(CAPM)

In the previous DCF model, we mentioned that calculating WACC requires the cost of equity capital (R_e), and CAPM is the most widely used and standard tool in the market for calculating (R_e). Its core logic is very compelling: high risk, high return. Investors should receive a corresponding risk premium based on the amount of undiversifiable risk they bear.However, CAPM has serious flaws; it is too idealistic, much like failing to consider air resistance and friction factors when calculating physical equations.

Core Equation:

$$R_i = R_f + \beta_i \times (R_m - R_f)$$

Variable	Name	Meaning	Common Real-World Proxy
R_i	**Expected Return**	The **minimum return** investors require for holding this stock, also called the cost of equity (R_e).	The final result calculated by the model.
R_f	**Risk-Free Rate**	The return earned from buying an asset considered virtually risk-free. Investors demand additional return above this baseline.	**10-year government bond yield**, such as the U.S. Treasury yield or Chinese government bond yield.
β_i	**Beta**	Measures the stock's **systematic risk** relative to the overall market, meaning how sensitive the stock is to market movements.	Calculated through statistical regression using historical data, such as Bloomberg or Yahoo Finance.
$R_m - R_f$	**Equity Risk Premium, ERP**	The extra return investors require for taking the risk of investing in the overall stock market, such as the S&P 500, instead of a risk-free asset.	Historical average stock market return minus government bond yield, usually around **4%–6%**.

Beta is the core of CAPM. It tells us how a stock will move when the overall market rises or falls by 1%.

Do Remember

$\beta = 1.0$: The stock's fluctuations are completely synchronized with the overall market. If the market rises by 1%, its price also rises by 1%.

$\beta = 1.5$: The stocks are usually aggressive/high-risk stocks (such as technology stocks, semiconductors, Tesla) If the market rises by 1%, it surges by 1.5%; if the market falls by 1%, it plummets by 1.5%. Because of the high risk, investors will demand a higher expected rate of return based on the formula.

$0 < \beta < 1.0$: Defensive/low-risk stocks (such as utilities, power, and consumer giants like Coca-Cola). Market volatility is high, but this type of performance tends to be stable.

The following content is required.

3) Return on Equity(ROE)
It measures how much net profit a company can generate for shareholders for every dollar they invest. This is the metric that Buffett values most.

$$ROE = \frac{\text{Net Income}}{\text{Total Equity}}$$

4) Return on Assets(ROA)
Return on Assets (ROA) measures how efficiently a company uses its total assets to generate net income. It shows how much profit the company earns for each unit of assets.

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

For example, $ROA = 10\%$, it means the company generates $10 of net income for every $100 of total assets. A higher ROA indicates that the company's asset utilization efficiency is stronger; a lower ROA indicates that although the company owns assets, its profitability is weaker.

5)Earnings Before Interest, Taxes, Depreciation, and Amortization
It measures a company’s operating profitability before the effects of financing costs, taxes, and non-cash expenses.

$$EBITDA = \text{Net Income} + \text{Interest Expense} + \text{Income Tax} + \text{Depreciation} + \text{Amortization}$$

A higher EBITDA usually indicates that the company's core business has stronger cash profitability; however, it is not equal to true net profit because it does not deduct interest, taxes, depreciation, and amortization.

6)DuPont Analysis(*please review ROE***)**

DuPont analysis is a classic, systematic financial analysis tool. Its essence lies in deconstruction: breaking down the seemingly isolated ROE into the product of three core driving factors, thus revealing at a glance how a company makes money.

$$ROE = Net\ Profit\ Margin \times Asset\ Turnover \times Equity\ Multiplier$$

The *Net Profit Margin* tells us that how much net profit does a company retain for every dollar of product it sells? This represents its product pricing power and cost control capabilities.

The *Asset Turnover* shows the operation. How quickly a company's assets turn over reflects its management efficiency and ability to achieve high sales volume with low profit margins.

The *Equity Multiplier r*epresents financial leverage, indicating the audacity to leverage resources and the utilization rate of financial leverage (as seen in real estate and banking).

If both companies have an *ROE* of 20%, DuPont analysis can tell you whether Company A's success is due to high product technology barriers (high profit margin), desperately squeezing asset liquidity (high turnover), or recklessly borrowing money to bet on risks (high leverage).

7) Company market capitalization calculation method

(I)Equity Value

This is what we commonly refer to as total market capitalization, which represents the market's valuation of the company's shareholders' assets.

$$Market\ Cap = Current\ share\ price \times Shares\ Outstanding$$

(II)Enterprise Value

This is the true total cost required to acquire the entire company. It represents the theoretical total price of the entire enterprise (including the equity of both shareholders and creditors).

$$EV = Market\ Cap + Total\ Debt + Minority\ shareholders'\ interests - Cash\ and\ its\ equivalents$$

Why deduct cash? Because if you buy the entire company, the cash on the company's books immediately becomes yours, which can be used to offset your acquisition costs.

8) Peer comparison method

The basic logic of the peer comparison approach is: *Similar companies/assets should have similar market pricing*. In other words, if two companies are in the same industry, of similar size, have similar business models, and similar growth rates and profitability, then the market will usually assign them similar valuation multiples.

Step 1: Screening Comparable Companies

Select publicly listed companies similar to the target company as reference targets, typically 5–10.

Criteria	Explanation
Same industry	For example, SaaS, consumer goods, banking, pharmaceuticals, etc.
Similar size	Revenue, market capitalization, or asset size should not be too different.
Similar business model	For example, subscription model, retail model, manufacturing model, etc.
Similar growth rate	High-growth companies should not be directly compared with low-growth companies.
Similar profitability	Metrics such as gross margin, net profit margin, and ROE should be relatively close.

Step 2: Collect Financial Data and Calculate Valuation Multiples

Common valuation multiples include:

(I) P/E ratio

It is suitable for:(1)Companies that are already profitable; (2)Traditional industries with stable earnings; (3)Mature companies. If a company has a P/E ratio of **20x**, it means: Investors are willing to pay **$20** for every **$1** of the company's annual earnings.

(II)EV / EBITDA
EV/EBITDA is widely used in investment banking and M&A analysis. It is suitable for:(1)Comparing multinational companies; (2)Asset-heavy industries; (3)Mergers and acquisitions; (4)Privatization transactions; (5)Companies with different capital structures.

Step 3: Calculate the Industry Average or Median
After collecting the valuation multiples of comparable companies, calculate the *Average Multiple* or *Median Multiple*. In practice, the **median** is often more reliable than the average. If one company has an extremely high or extremely low valuation multiple, the average can be distorted. The median is usually more stable and less affected by outliers.

After finding the average or median multiple of comparable companies, apply that multiple to the financial data of the target company.
For example :

Item	Data
Peer Average P/E	20x
Target Company EPS	$2

Then the estimated fair share price is:

$$Target\ Share\ Price = EPS \times P/E$$

$$Target\ Share\ Price = 2 \times 20 = 40$$

If the peer average P/E ratio is **20x** and the target company's EPS is **$2**, then based on comparable company valuation, the target company's fair share price is approximately **$40**.

9) Sharpe Ratio

The Sharpe ratio, proposed by Nobel laureate economist William Sharpe, measures how much excess return an investment portfolio can generate for every unit of total risk it takes.

$$SR = \frac{E(R_p) - R_f}{\sigma_p}$$

E(Rp) means the expected return of the portfolio.

Rf means the **risk-free rate**, such as the return on government bonds.

E(Rp) - Rf means the excess return, or the risk premium.
It shows how much extra return the investor earns by taking risk instead of holding a risk-free asset.

σ_p means the **standard deviation of the portfolio**, which represents the portfolio's total risk.

Suppose two fund managers both earned **15%** last year. Which one performed better?

Fund A

Fund A is highly volatile and holds many risky stocks.
Its standard deviation is **30%**.

Fund B

Fund B is more stable and holds mainly blue-chip stocks.
Its standard deviation is **10%**.

Assume the risk-free rate is **3%**

According to Sharpe Ratio

$$SR_A = \frac{15\% - 3\%}{30\%} = 0.4$$

$$SR_B = \frac{15\% - 3\%}{10\%} = 1.2$$

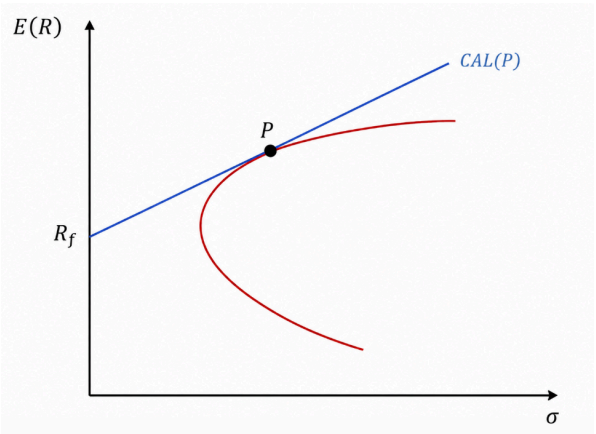
Fund B performed better.

Although Fund A and Fund B both earned a 15% return, Fund B achieved the same return with much lower risk.

A higher Sharpe Ratio means better risk-adjusted performance. In other words, Fund B helped investors avoid the illusion of "earning more simply by taking bigger risks."

10) Capital Allocation Line(CAL)

The capital allocation line is a ray in a Cartesian coordinate system. It describes the set of all possible new portfolios formed by mixing a particular portfolio of risky assets with risk-free assets. The image below is a typical CAL.



Horizontal axis (X-axis): Total risk (standard deviation)

Vertical axis (Y-axis): Expected return E(R)

Blue Line: CAL; Red Curve: efficient frontier, composed of all purely risky assets

CAL function:

$$E(R_c) = R_f + \left[\frac{E(R_p) - R_f}{\sigma_p}\right] \times \sigma_c$$

The slope of the Capital Allocation Line (CAL) is mathematically exactly equal to the Sharpe ratio of that risky asset portfolio.

Since the slope of CAL is the Sharpe ratio, the steeper the line (the greater the slope), the higher the return you can get for the same level of risk. The investor's goal is to find the steepest CAL line on Markowitz's Efficient Frontier that is exactly tangent to the efficient frontier. The portfolio of risky assets at this tangent point represents the perfect portfolio with the highest Sharpe ratio across the entire market. This optimal CAL line is then given a more widely known name – the Capital Market Line (CML).

Practise

(1)Suppose you are evaluating a mature technology company, UAsite15 Group. Your valuation model needs to define its cost of equity. You need to estimate the required rate of return investors would demand for holding the stock.. Current market data is as follows:

10-year Treasury yield: 4.0%
Beta Index: 1.2
Market risk premium: 5.0%

(2)Company A and Company B both have an **ROE of 18%**, but their business models are different. Use the data below to conduct a DuPont analysis and determine the main driver of each company's ROE.

Company A

Item	Data
Net Income	$180,000
Sales	$1,000,000
Total Assets	$2,000,000
Total Equity	$1,000,000

Company B

Item	Data
Net Income	$180,000
Sales	$3,000,000
Total Assets	$1,500,000
Total Equity	$1,000,000

Write your answer here:

Get the answer here: https://www.uasite15.org/business-101/question-3

ESG Three-Dimensional Analysis

Dimension	Core Focus	Common Indicators	Case Examples
E: Environment	Focuses on a company's management of natural resources, pollution, and carbon emissions.	Carbon emission intensity, such as **CO_2 per revenue**; energy efficiency; water resource use; waste management; supply chain environmental protection.	**Tesla**: Although Tesla uses clean energy as its core business, it has also faced disputes over lithium mining and pollution from battery production. This shows that a "high ESG score" does not necessarily mean "zero controversy."
S: Social	Measures a company's relationships with employees, suppliers, customers, and communities.	Employee safety; labor rights; diversity in hiring; customer privacy; product safety.	**Nike**: In the 1990s, Nike was criticized for severe labor issues in overseas contract factories. Later, it established sustainable supply chain standards, demonstrating a transition from ESG risk to brand recovery.
G: Governance	Focuses on a company's internal structure, fairness, and transparency.	Board independence; proportion of female directors; executive compensation structure; anti-corruption mechanisms; shareholder rights.	**Enron**: A classic example of governance failure. Its fraudulent accounting practices eventually led to bankruptcy. In ESG, the "G" dimension plays the strongest role in risk prevention.

Traditional financial analysis focuses on short-term profitability (such as ROE, EPS, and PE), while ESG represents a company's long-term risk management and ability to continuously create value.

Harvard University and MSCI research indicates that:

(1)Companies with high ESG ratings experience an average 10% decrease in capital costs;

(2) Stock price volatility decreases by approximately 20%;

(3)Long-term returns outperform the market average by approximately 5–7% over 10 years.

ESG improvements → Reduced legal and reputational risks → Enhanced investor trust → Lower capital costs → Increased market capitalization

The core logic of the ESG rating system

ESG rating is essentially a non-financial risk scoring system that assesses a company's performance in the environmental (E), social (S), and governance (G) dimensions to reflect the company's long-term stability and sustainability risks.

Comparative understanding: Financial ratings (such as S&P and Moody's) focus on whether a company can make money; ESG ratings focus on whether a company can survive long-term, operate cleanly, and operate with integrity.

Below are the mainstream ESG scores. We will select the most mainstream MSCI index for analysis.

Institution	Rating Scale / Score	Data Sources	Key Features	Use Cases
MSCI ESG Ratings	**CCC–AAA**; 7 levels in total	Public disclosures + third-party data	Highly influential; emphasizes industry-relative comparison	Portfolio screening; ETF design
Sustainalytics by Morningstar	**0–100**; lower score means lower risk	Company self-disclosure + media events	Focuses on **risk exposure and management capability**	Institutional investment; risk control
Refinitiv ESG Score	**0–100**	Annual reports; company statements	Broad coverage; emphasizes disclosure quality	Large financial data terminals, such as Eikon
Bloomberg ESG Disclosure Score	**0–100**	Company reports	Focuses on the completeness of information disclosure rather than direct ethical judgment	ESG information transparency analysis
FTSE Russell ESG Rating	**0–5** for each dimension	Company data + external research	Systematic indicators; high transparency	Index fund construction; cross-country comparison
ISS ESG Corporate Rating	**D–A+**	Annual reports; NGOs; news events	Highly influential in the European market	Proxy voting; board governance analysis

MSCI is currently the world's most widely used ESG rating system (covering approximately 8,500 listed companies globally), with ratings ranging from CCC (lowest) to AAA (highest).

It emphasizes "relative industry comparison" and is not an absolute standard.

Rating Dimensions:

E (Environment): Energy efficiency, carbon emissions, waste management

S (Social): Employee management, customer privacy, product safety

G (Governance): Board independence, compensation transparency, corruption risk. Each dimension is further subdivided into 20-35 indicators (KPIs).

1) Industry Adjustment

The same behavior receives different scores across different industries.For example: Coal companies will receive lower scores due to high carbon emissions. Technology companies are more focused on privacy and governance.

(I) Data Sources

Annual reports/sustainability reports from listed companies, regulatory disclosures, media/NGOs, and third-party databases; covering 1000+ indicators and 20 years of shareholder meeting/board data, etc.

(II) Key Issues and Industry Customization

MSCI selects a set of "most financially relevant" key issues for each GICS sub-industry (approximately 33–35 issues selected from a pool), assigning issue weights (totaling 100%), reviewing annually, and adjusting as industry risk changes.

(III) Three-Tier Structure

The logic is:
KPI Layer (Indicators) → Key Issue Score → Pillar (E/S/G) Score → Weighted Summary

The four basic issues under Governance (G) (Ownership & Control, Board, Pay, Accounting) adopt a top-down absolute deduction method (deducting from 10 points).

Key Issue Score (0–10) Formation: Core Idea: Each issue score is driven by two components: Exposure and Management, and is compounded by Controversy Deduction.

Notation Conventions:
E_k = Company's exposure to issue k (0- 10 ; higher = greater risk)
M_k = Company's management capability for issue k (0 - 10; higher = stronger management)
C_k = Controversy score for issue k (0 - 10; According to the latest severe event trigger. The higher the score, the more points will be deducted.)
S_k = Final score (0-10)

1. Exposure
Modeled using 80+ segmented indicators comprised of business/region/supply chain metrics to characterize whether a company is naturally exposed to the risk. (For example: upstream mining has high exposure to "carbon/water/biodiversity," SaaS has high exposure to "data privacy.")

2. Management Capability
Composed of policies, systems, quantified performance, and objectives/verifications (e.g., whether there are SBTi emission reduction targets, whether there is third-party verification, whether there is an independent privacy officer, etc.), converted into a management score of 0–10.

3. Functional Relationship of Issue Scoring
MSCI's publicly available methodology emphasizes the *exposure × management* paradigm, but the precise function form and parameters are proprietary. It can be understood as: management capability"mitigates/hedges exposure, converts it to a 0–10 range, and then adds controversies adjustment.

$$S_k = f(E_k, M_k) - \Delta C_k$$

The four governance issues (ownership and control, board of directors, compensation, and accounting) use a *starting from a maximum score of 10, deducting points item by item for each deficiency* approach. This is an absolute benchmark, not an industry-specific one.

4. Mapping and Deduction of Controversies
When a new controversy arises, it will be mapped to the relevant issue with the highest weight for point deduction; adjustments to severity are managed by internal committee rules (including the definition and approval path for the Red Flag Very Severe). The independent Controversies Score is also on a 0–10 scale (0 = most severe) and is used independently in index screening and eligibility assessment.
Note: Seeing the phrase *Key Issue Controversy Deduction* in the company report indicates that the score for that issue has been reduced due to the latest controversy.

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Market & Industry Analysis

ESG tells you "how to be responsible" for your business, while market analysis tells you "where to make money".

PESTEL

The approach involves three steps:
1. Listing: List 3-5 facts (data/policies/events) for each dimension. Avoid vague statements.
2. Impact Direction: Mark ▲ positive / ▼ negative; impact strength (1-5).
3. Prioritization: Identify the top 5 most impactful and actionable factors to inform subsequent strategic assumptions.

Dimension	What to Analyze	Quantifiable Indicators Examples
P: Political	Stability, industrial subsidies, tariffs, permits and licenses	Policy subsidy intensity, approval period, tax rate
E: Economic	Growth, employment, income, interest rates, exchange rates	GDP, CPI, lending rates, disposable income
S: Social	Demographic structure, consumer preferences, education, culture	Population growth rate, urbanization rate, average customer spending
T: Technological	Technological maturity, penetration rate, patents	Number of patents, price curve of key components
E: Environmental	Emissions, energy consumption, raw materials, extreme weather	Carbon price, energy intensity, water price
L: Legal	Competition law, data law, product compliance	Licensing requirements, maximum fines, scope of liability

Practise

Industry: New Energy Passenger Vehicles (EVs)
Region: Mainland China (2024 – 2026)
Objective: To assess the favorable/risk external environment for the industry and provide a basis for market entry or expansion.

Get your answer here: https://www.uasite15.org/business-101/question-4

Porter 5

Objective: To assess the industry's structural profit margins (moat/sea).
Key Points: Use evidence and scoring for each point (1 = weak, 5 = strong), and finally conclude the industry's attractiveness.

Five Key Points and Scoring Tips:

1. Intensity of competition among existing competitors: CR4/HHI, frequency of price wars, degree of product differentiation
2. Threat of potential entrants: Capital requirements, economies of scale, channel/compliance barriers, network effects
3. Threat of substitutes: Cross-category substitution (taxi → ride-hailing → subway), switching costs
4. Supplier bargaining power: Upstream concentration, proprietary technology/patents, switching costs, raw material volatility
5. Buyer bargaining power: Customer concentration, information symmetry, price sensitivity, potential for backward integration

Concentration Ratio

CR_n (Concentration Ratio of top n firms) = Sum of market share of the top n firms
Commonly used:

CR4: Sum of market share of the top four firms

CR10: Sum of market share of the top ten firms

$$CR_n = \sum_{i=1}^{n} S_i$$

Where S_i is the market share of the i-th company.

Example:
Suppose the market share of the top four companies in a certain industry is 25%, 20%, 15%, and 10%, respectively.

Then: $CR_4 = 25 + 20 + 15 + 10 = 70\%$

Do Remember

CR_4 Range	Industry Structure Type	Meaning
$CR_4 <$ 40%	Perfectly competitive / fragmented industry	The market is dispersed, competition is intense, and price wars are frequent.
40% ≤ $CR_4 \leq$ 70%	Transitional zone between monopolistic competition and oligopolistic competition	There are leading firms, but new entrants still have room to enter the market.
$CR_4 >$ 70%	Oligopolistic industry	Leading firms control prices and standards, resulting in high profit margins.
$CR_4 \approx$ 100%	Complete monopoly	One firm or a small number of firms monopolize the market.

Five-power linkage and transformation

Interconnectedness: When platform/network effects are strong, the threat of new entrants decreases, and buyer bargaining power weakens (is locked in).

Life Cycle:
Growth Stage: Competition intensity is temporarily low (large market share), but the threat of new entrants is high;

Maturity Stage: Growth slows → competition intensity increases, price wars intensify.

Regulation and Technology: A single license or a technological paradigm shift (AI, chip manufacturing process) can instantly rearrange the five elements.

Optional Sixth Element: Complementors (operating systems for apps, charging stations for EVs), while not the original five elements, are crucial in the digital/platform economy.

Force	Evidence: Use Bullet Points	Score 1–5	Notes
Existing Competitors	Example: CR4 = 28% fragmented market + frequent price wars	4	Mature market; homogeneous competition
New Entrants	Example: Licenses + high CAPEX; 18-month construction period	2	High entry barriers
Substitutes	Example: Similar-function apps are growing rapidly	3	Moderate threat
Suppliers	Example: Upstream duopoly + patent lock-in	4	Strong bargaining power
Buyers	Example: Top 3 customers contribute 42% of revenue	5	Extremely strong bargaining power

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Strategy & Positioning

SWOT is the starting point, but strategy must be put into action.

Three Strategic Questions:
Which market should we enter?
Whose needs should we satisfy?
What will we rely on to win (core competitive advantage)?

Porter's Generic Strategies

Strategy Type	Core Logic	Conditions for Success	Typical Companies
Cost Leadership	Achieve the lowest unit cost through scale, processes, supply chain, and automation	Large scale, standardization, strict cost control	Walmart, McDonald's, Lenovo
Differentiation	Products or services have unique value, and customers are willing to pay more	Strong brand, R&D, design, user experience	Apple, Starbucks, Nike
Focus	Focus on a specific niche market and win through cost leadership or differentiation	Deep understanding of a specific customer group or region	Lululemon, early Tesla

Cost leadership ≠ "selling at the lowest price," but rather "achieving reasonable profits at the lowest cost";

Differentiation ≠ "creating hype," but rather "making customers feel a genuine difference";

Focus = "becoming king in a small market."

Value Proposition Canvas

The Value Proposition Canvas can be used in conjunction with the STP model.
The Value Proposition Canvas consists of two parts:
1) Customer Profile
What the customer needs to accomplish (Jobs)
Customer pain points (Pains)
Customer gains (Gains)

2) Value Map
Your product features (Products & Services)
Pain Relievers
Gain Creators

4P Model

The 4P Model is a classic marketing framework used to analyze how a company brings a product to the market. It helps answer one essential question:
How does a company turn a product into market demand. In other word, we can say: A company must sell the right product, at the right price, through the right channel, with the right promotion.

4P Element	Meaning	Core Questions	Examples
Product	What the company sells to customers	What problem does the product solve? What features, quality, design, or brand value does it offer?	iPhone's design, Starbucks coffee, Tesla's smart EV system
Price	How much customers pay	Is the product priced as premium, affordable, or cost-effective? Does the price match customer value?	Apple premium pricing; Walmart low-price strategy
Place	Where and how the product reaches customers	Is the product sold online, offline, through distributors, stores, or direct-to-consumer channels?	Amazon online sales; Nike flagship stores; supermarkets
Promotion	How the company communicates with customers	How does the company attract attention and persuade customers to buy?	Advertising, social media, influencer marketing, discounts, events

Comprehensive problem-solving methods

Macro Environment (PESTEL)

↓

Industry Structure (5-Force Analysis)

↓

Company Strengths (SWOT Analysis)

↓

Strategic Choices (Cost Leadership / Differentiation / Focus)

↓

Market Positioning (STP Model)

↓

Tactical Execution (4Ps: Product, Price, Place, Promotion)

Practise

Case: Should BrewGo Enter the Campus Coffee Market?

BrewGo is a start-up coffee brand planning to enter the university-area coffee market in a major city. The company wants to open small-format coffee stores near universities and office buildings. Its core idea is:

Affordable specialty coffee + fast pickup + student-friendly membership system.

The founder believes that students and young professionals are tired of expensive premium coffee chains, but they still want better taste and better store experience than convenience-store coffee.

The company is considering entering one district with **five universities, several office buildings, and two subway stations**.

Current market data:

Brand	Market Share
Starbucks	28%
Luckin Coffee	25%
Manner Coffee	12%
Local independent cafés	10%
Convenience-store coffee	8%
Others	17%

Additional market information:

- The local government supports small businesses and youth entrepreneurship, but food-safety inspections are becoming stricter.
- Young consumers are highly price-sensitive, but they also care about taste, brand image, app convenience, and social-media popularity.
- Rent near universities and subway stations is rising.
- Coffee bean prices fluctuate because of global climate and supply-chain instability.
- Mobile ordering and pickup are now common.
- Competitors frequently offer coupons and membership discounts.
- Students often buy coffee before class, during exam periods, and in the afternoon.
- Office workers care more about speed, convenience, and reliable quality.
- Some customers may substitute coffee with milk tea, energy drinks, or convenience-store drinks.
- BrewGo has limited capital and cannot open many stores in the first year.

BrewGo is considering three strategic options:

1. **Low-price expansion**: compete mainly through low prices and coupons.
2. **Premium differentiation**: create a higher-end specialty coffee brand with better store design and premium beans.
3. **Focused campus strategy**: focus on university students and nearby young office workers, using fast pickup, student membership, and exam-season promotions.

Question

Write a business recommendation report for BrewGo.

Your answer should not separately list every framework. Instead, you should use relevant business tools together to answer the following core question:

Should BrewGo enter this market? If yes, what entry strategy should it choose, and how should it turn that strategy into action?

Your report must include:

1. A judgment of whether the external environment is attractive or risky;
2. A calculation of the industry concentration level using CR4;
3. An explanation of how industry structure affects BrewGo's entry decision;
4. An assessment of the strongest competitive pressures in the market;
5. A clear strategic choice among low-price expansion, premium differentiation, and focused campus strategy;
6. A customer value proposition for the target segment;
7. A concrete marketing action plan using product, price, place, and promotion;
8. One major risk and one response plan.

You should write the answer as a coherent business analysis, not as isolated bullet-point answers.

Get your answer here: https://www.uasite15.org/business-101/question-5

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Innovation and Marketing

When people buy things, are they driven by reason or emotion?

Innovation

Innovation = New Idea + Practical Implementation + Economic/Social Value.

1) Three key elements:

1. Novelty: Different from the status quo;
2. Feasibility: Technically or procedurally feasible;
3. Value Creation: Brings benefits or improves the user experience.

2) The Level of Innovation:

Level	Core Logic	Example	Strategy Type
Incremental Innovation	Improve existing products	iPhone 13 compared with iPhone 12	Cost leadership / Experience improvement
Disruptive Innovation	Redefine the market through lower cost or new technology	Netflix replacing cable TV	Blue ocean strategy
Architectural Innovation	Restructure system relationships or ecosystems	Apple's App Store model	Platform strategy

Cognitive Biases and Consumer Choices

In real-world business environments, consumers have limited attention spans, incomplete information, and are easily influenced by emotions, often leading to systematic biases in decision-making. Cognitive bias refers to the tendency for humans to unconsciously deviate from objective rationality when thinking and judging. A crucial task of business strategy is to understand bias, not to combat it. Many successful business models, in essence, align with human psychological principles.

1)Anchoring Effect

The first number that appears will strongly influence the judgment.

"Original price 399, now 199"
Consumers focus on
"how much they saved,"
not
"whether it's worth 199."

Business logic:
Price first, then discount is a common pricing strategy.

2) Loss Aversion
The pain of loss is more intense than the pleasure of gain.

Examples:

Membership expiration reminder: "Your rights are about to expire."

Limited-time return guarantee increases order rates.
Business strategy: Leveraging consumers' heightened sensitivity to "missed opportunities."

3) The Bandwagon Effect
People tend to follow the choices of the majority.

Examples:

Bestseller lists, queues, sales figures

Popular online stores: "More people = better"

Reason: What others choose is safer.

4) Choice Overload
Too many options can reduce the desire to buy.

Examples:

Bundled meals (McDonald's, Heytea)

Default recommendations (first page of food delivery platforms)
Businesses can improve conversion rates by helping consumers reduce their cognitive load.
Do Remember : Give customers multiple-choice questions, not fill-in-the-blank questions.

5) Keller CBBE Brand Gold Pyramid

The higher the brand goes, the stronger the psychological relationship becomes.

Level	Core Psychological Question	Business Meaning
Brand Resonance	Are we the same kind of people?	Loyalty, repeat purchase, word-of-mouth
Brand Judgments	Do I trust you?	Perceived quality, satisfaction
Brand Performance & Imagery	What are you? What are you good at?	Brand differentiation and recognition
Brand Salience	Do I know you?	Mental availability, sense of presence

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Mathematics of Business Decision-Making

Make decisions using the most rational methods

Cost minimization and benefit maximization

1) Enterprises typically need to optimize a target function, for example:

$$\text{Maximize } \Pi = TR - TC$$

$\boldsymbol{\pi}$: profit
TR(Total Revenue) = P X Q
TC(Total Cost) = FC + VC X Q

2) Marginal Analysis
Profit maximization condition:

$$\boldsymbol{MR = MC}$$

Linear Programming

Simple Equation

$$\text{Maximize } Z = a_1x_1 + a_2x_2 + \ldots + a_nx_n$$

$$b_{11}x_1 + b_{12}x_2 \leq c_1$$

$$x_1, x_2 \geq 0$$

Inventory Control

EOQ (Economic Order Quantity) model:

$$EOQ = \sqrt{\frac{2DS}{H}}$$

D: Annual demand / Demand per year
S: Setup cost per order / Ordering cost per order
H: Annual holding cost per unit / Holding cost per unit per year

Pricing & Elasticity

Demand function

$$Q = a - bP$$

Payoff function

$$R = P \times Q = aP - bP^2$$

Maximizing R

$$\frac{dR}{dP} = 0 \Rightarrow P = \frac{a}{2b}$$

APPENDIX I

Additional Website

Exercises and Solutions

https://www.uasite15.org/business-101

Business Sandbox Simulation V2

https://hvdsim.vercel.app/

Business Sandbox Simulation V1

https://ua-hvdbusiness-simulator-v-0-21.netlify.app/

APPENDIX II

Quick Reference Cards

Analysis Stage	Key Question	Tools / Models	Output
1. Market Analysis	Where is the opportunity? What is the competition like?	PESTEL / Porter's Five Forces / Market Size	Industry feasibility assessment
2. Strategic Positioning	Why us? What do we rely on to win?	Cost Leadership / Differentiation / Value Chain	Strategic choice alignment
3. Marketing Strategy	Who will buy? Why will they buy?	STP / 4P / Psychological Drivers	Customer acquisition plan
4. Financial Feasibility	Can it make money? Is it sustainable?	NPM / ROE / Cost Structure	Financial model / Profit and loss forecast
5. Team Organization	Who will do it? How will they collaborate?	Division of Labor / Incentive Model	Execution plan
6. Product Innovation	How can we sustain competition?	MVP / Technology Trends	Long-term growth potential

APPENDIX III

Revised Contents

Business 101 is a revised and modularized version of the original **UAsite15 Business Course Learning** material. This update focuses on improving readability, course structure, and classroom usability for high school students.

Compared with the previous version, Business 101 reorganizes the content around the core logic of business analysis. Advanced topics such as **ROE, CAPM, DCF, WACC, Sharpe Ratio, and the Capital Allocation Line** are retained but clearly marked as more challenging or elective sections, allowing students to progress from foundational concepts to advanced models at a manageable pace.

The new version also removes less relevant HR-related content and places greater emphasis on areas more closely connected to high school business education and competition training, including marketing strategy, financial analysis, valuation, ESG, and business decision-making. In addition, selected chapters now include **Practice** problems with answer links, creating a clearer learning-and-feedback structure.

Overall, Business 101 is not merely a simplified version of the original material. It is a more student-oriented, structured, and practical course book designed for business clubs, classroom instruction, and case competition preparation.

APPENDIX IV

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