MASTERCLASS

FINANCIAL MODELLING & VALUATION

HELLO!

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> 14 years of solid in-depth knowledge and experiences in the accounting, finance, tax, treasury, management, digitalisation transformation and corporate governance field.

> A Chartered Accountant from Malaysian Institute of Accountant and a member of the Association of Chartered Certified Accountants (UK).

Current/Past Job Position:

Chief Finance Officer in a Public Listed Company
Directorship in Indonesia Company
Several Directorship in Private Companies
Head of Finance Department
Group Accountant
Accounting Reportant
External Auditor

HOW MUCH YOUR COMPANY'S WORTH??

WHAT IS VALUATION?

An **analytical process**

of determining the current (or projected) **worth of** an **asset** or a **company**

- Quantitative process of determining the fair value of an asset, investment, or firm.
- Involves some degree of subjective input or assumptions.
- Several methods and techniques for arriving at a valuation each of which may produce a different value.

Methods

- Market Value Valuation
- Asset-Based Valuation
- ROI-Based Valuation
- Discounted Cash Flows Valuation
- Multiples of Earnings Valuation
- Book Value Valuation

HOW IMPORTANT OF VALUATION FOR START UP?

Pre-seed round

Seed Round

New injection of capital

Series Round

A, B, C, D

Initial Public Offering

Valuation

Equity Interest

1 INTRODUCTION

THE KEY LEARNING OUTCOMES FOR THE SESSION

LEARNING OBJECTIVES

- Understanding the importance of financial modelling
- How to value your company and plan a fundraising road map
- Prepare a Cap Table based on your business model

These key areas will be covered over the course of the Masterclass

2

FINANCIAL MODELLING

THE IMPORTANCE OF FINANCIAL PLANNING AND HOW TO EXECUTE

REASONS FOR FINANCIAL MODELLING

Sustainable Operating Business?

Make sense? Can match to each other strategies?

Breakdown? Reasonable funds spending?

3

TWO APPROACHES OF FINANCIAL MODELLING

FOR START-UP BUSINESS

TOP-DOWN FORECASTING

Using the Top-Down Forecasting approach, we can work from a macro/outside-in perspective towards micro view. Industry business information typically shall be early benchmarking point and step-by-step narrowed down into the target that fit the Company's vision, missions and strategies.

Therefore, the most useful aid to perform top-down forecasting is **TAM SAM SOM** model.

With the **TAM SAM SOM model**, the next steps would be :-

- Estimate all costs needed to build or deliver your product or services
- Expenses needed to perform business tasks (marketing, sales, R&D, admin)
- Reasonable timeframe on the deliverables

BOTTOM-UP FORECASTING

Using the **Bottom-Up Forecasting** approach, it is less dependent on external factors but leverages internal company specific data such as sales data or the company's internal capacity/resources. This means a projection is made based on the main value drivers of the business.

The pitfall of the top-down approach is that it might seduce you to forecast too optimistically, especially sales.

If you are a start-up founder and looking for fund raising, the bottom-up approach might not do the trick, investor usually expect startups to grow fast and gain significant market share rapidly.

Combination of Two Methodology

=

- Use bottom-up for short term
- Use top-down for medium and longer term
- Able to sustain the business and defend the short term target
- Long term target to demonstrate the desired market share and match with the aim of investor is looking for.

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KEYWORD OF FINANCIAL MODELLING

ASSUMPTIONS

MAKING GOOD ASSUMPTIONS

When building your financial models, your numbers will be crucially substantiated by assumptions.

With historic data often available, projections and future estimated returns need to be backed up by “proof”!

What kind of “proof” can we use to project these figures?

Assumptions can be gleamed from a number of sources, including market research, web search volume, supplier contracts, pricing validation, historic sales data, conversion rates, website traffic etc.

Tip: Have a place with all the above information collated so it is easily accessible and makes the process of validating or proving your assumption much more realistic.

Anticipate that Investor might request for **DUE DILIGENCE PROCESS**

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OUTCOMES OF FINANCIAL MODELLING

THE CRUCIAL METRICS KEY TO THE SUCCESS OF A BUSINESS

PROFIT & LOSS

[Company Name]
Profit and Loss (P&L) Statement
[USD $ millions]

	2018												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Full Year
Revenue stream 1	587.0	596.3	605.8	615.4	625.2	635.1	645.2	655.4	665.8	676.4	687.1	698.0	7,692.6
Revenue stream 2	145.6	147.9	150.2	152.6	155.0	157.5	160.0	162.5	165.1	167.7	170.4	173.1	1,907.8
Returns, Refunds, Discounts	(21.0)	(21.3)	(21.7)	(22.0)	(22.4)	(22.7)	(23.1)	(23.5)	(23.8)	(24.2)	(24.6)	(25.0)	(275.3)
Total Net Revenue	**711.6**	**722.9**	**734.3**	**746.0**	**757.8**	**769.9**	**782.1**	**794.5**	**807.1**	**819.9**	**832.9**	**846.1**	**9,325.0**
Cost of Goods Sold	269.6	273.9	278.2	282.7	287.1	291.7	296.3	301.0	305.8	310.7	315.6	320.6	3,533.2
Gross Profit	**442.0**	**449.0**	**456.1**	**463.3**	**470.7**	**478.2**	**485.7**	**493.5**	**501.3**	**509.2**	**517.3**	**525.5**	**5,791.8**
Expenses													
Advertising & Promotion	18.7	19.1	19.5	19.8	20.2	20.6	21.0	21.5	21.9	22.3	22.8	23.2	250.6
Depreciation & Amortization	108.7	110.9	113.1	115.3	117.6	119.9	122.3	124.8	127.2	129.8	132.3	135.0	1,456.8
Insurance	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	14.7
Maintenance	5.7	5.8	5.9	6.0	6.2	6.3	6.4	6.5	6.7	6.8	6.9	7.1	76.4
Office Supplies	2.8	2.9	2.9	3.0	3.0	3.1	3.2	3.2	3.3	3.3	3.4	3.5	37.5
Rent	5.8	5.9	6.0	6.2	6.3	6.4	6.5	6.7	6.8	6.9	7.1	7.2	77.7
Salaries, Benefits & Wages	251.2	256.2	261.3	266.5	271.8	277.2	282.7	288.3	294.0	299.9	305.8	311.9	3,366.7
Telecommunication	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.9	20.1
Travel	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.6	2.7	2.7	2.8	2.9	30.8
Utilities	1.4	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7	18.8
Other Expense 1	3.8	3.9	4.0	4.0	4.1	4.2	4.3	4.4	4.4	4.5	4.6	4.7	50.9
Other Expense 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	403.0	411.0	419.2	427.5	436.0	444.7	453.5	462.5	471.7	481.1	490.6	500.4	5,401.1
Earnings Before Interest & Taxes	**39.0**	**38.0**	**36.9**	**35.8**	**34.7**	**33.5**	**32.2**	**30.9**	**29.6**	**28.2**	**26.7**	**25.2**	**390.6**
Interest Expense	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
Earnings Before Taxes	**36.5**	**35.5**	**34.4**	**33.3**	**32.2**	**31.0**	**29.7**	**28.4**	**27.1**	**25.7**	**24.2**	**22.7**	**360.6**
Income Taxes	10.9	10.6	10.3	10.0	9.7	9.3	8.9	8.5	8.1	7.7	7.3	6.8	108.2
Net Earnings	**25.5**	**24.8**	**24.1**	**23.3**	**22.5**	**21.7**	**20.8**	**19.9**	**19.0**	**18.0**	**16.9**	**15.9**	**252.4**

CASHFLOWS

[Company Name]

12-Month Cash Flow

Period Beginning	1/1/14	2/1/14	3/1/14	4/1/14	5/1/14	6/1/14	7/1/14	8/1/14	9/1/14	10/1/14	11/1/14	12/1/14
Period Ending	1/31/14	2/28/14	3/31/14	4/30/14	5/31/14	6/30/14	7/31/14	8/31/14	9/30/14	10/31/14	11/30/14	12/31/14
Cash at Beginning of Period	15,700	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325
Cash at End of Period	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325	17,325

Operations	Jan'14	Feb'14	Mar'14	Apr'14	May'14	Jun'14	Jul'14	Aug'14	Sep'14	Oct'14	Nov'14	Dec'14
Cash receipts from												
Customers	57,767											
Other operations												
Cash paid for												
Inventory purchases	(22,000)											
General operating and sales expenses	(9,333)											
Wage expenses	(10,250)											
Interest	(1,125)											
Income taxes	(2,733)											
Net Cash Flow from Operations	12,325	0	0	0	0	0	0	0	0	0	0	0
Investing Activities												
Cash receipts from												
Sale of property and equipment	2,800											
Collection of principal on loans												
Sale of investment securities												
Cash paid for												
Purchase of property and equipment	(6,250)											
Making loans to other entities												
Purchase of investment securities												
Net Cash Flow from Investing Activities	(3,450)	0	0	0	0	0	0	0	0	0	0	0
Financing Activities												
Cash receipts from												
Issuance of stock												
Borrowing												
Cash paid for												
Repurchase of stock (treasury stock)												
Repayment of loans	(2,833)											
Dividends	(4,417)											
Net Cash Flow from Financing Activities	(7,250)	0	0	0	0	0	0	0	0	0	0	0
Net Cash Flow	1,625	0	0	0	0	0	0	0	0	0	0	0

DIFFERENCES BETWEEN PL & CF

Cash flow vs. profit: What's the difference?

So, **is cash flow the same as profit**? No, there are stark differences between the two metrics. Cash flow is the money that flows in and out of your business throughout a given period, while profit is whatever remains from your revenue after costs are deducted. While profit will show you the immediate success of your business, cash flow may be a more astute means of determining your company's long-term financial outlook. In this sense, the key difference between the two metrics is time.

Is cash flow more important than profit?

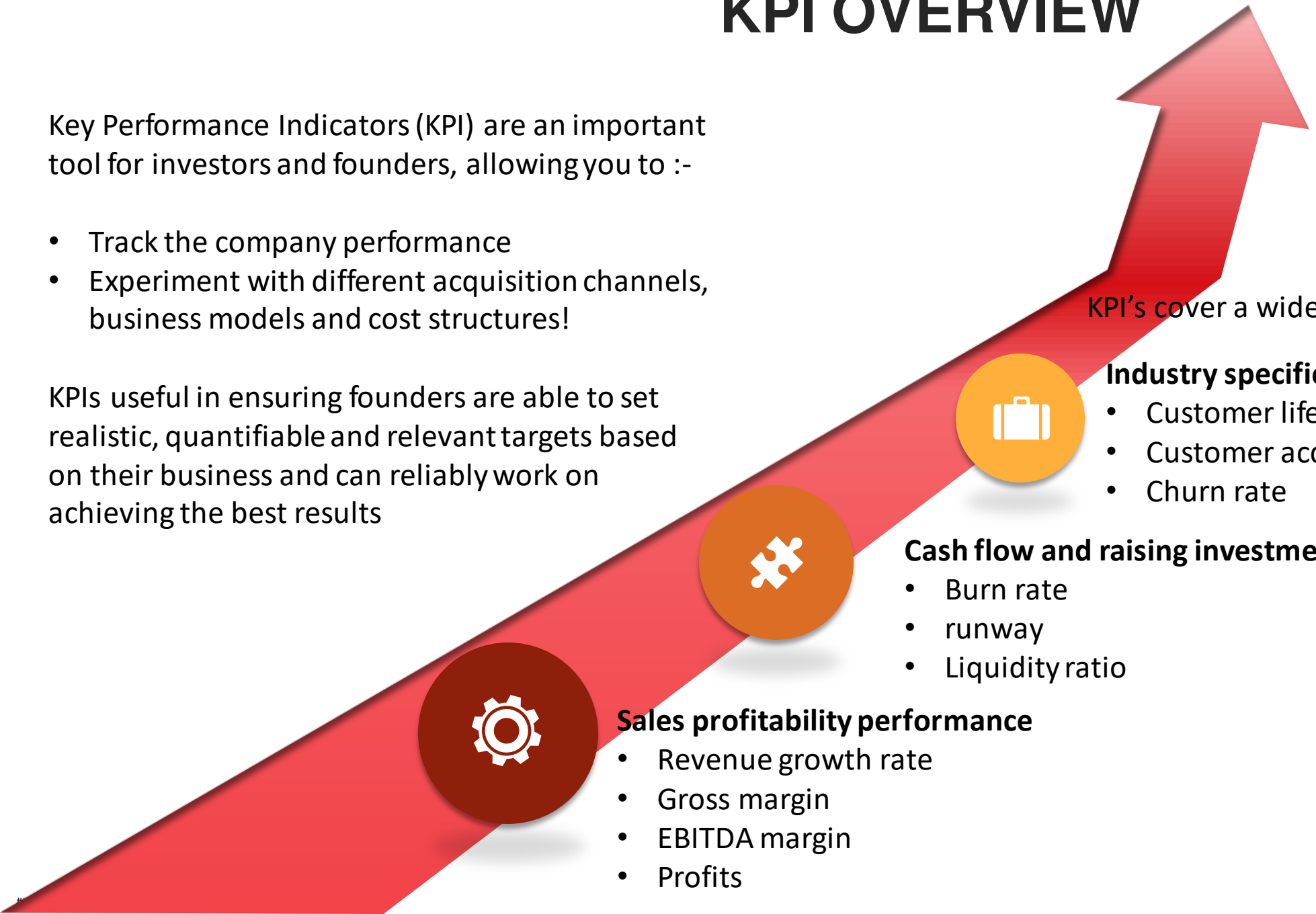
Ultimately, **cash flow and net profit** measure different things. While profit is the goal – and an indicator of financial health – cash flow is the lifeblood of an organisation, keeping operations ticking over on a day-to-day basis. For a growing business, both **cash flow and net profit** are important, but in the short-term, cash flow is probably the number one concern.

KPI OVERVIEW

Key Performance Indicators (KPI) are an important tool for investors and founders, allowing you to :-

- Track the company performance
- Experiment with different acquisition channels, business models and cost structures!

KPIs useful in ensuring founders are able to set realistic, quantifiable and relevant targets based on their business and can reliably work on achieving the best results



KPI's cover a wide range of metrics, including :-

Industry specific metrics
- Customer life-time value
- Customer acquisition cost
- Churn rate

Cash flow and raising investment
- Burn rate
- runway
- Liquidity ratio

Sales profitability performance
- Revenue growth rate
- Gross margin
- EBITDA margin
- Profits

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ELEMENTS OF FINANCIAL MODELLING

THE INTEGRAL PARTS TO BUILDING A COMPREHENSIVE MODEL

REVENUE

What is Revenue?

Revenue is the value of all sales of goods and services recognized by a company in a period. Revenue (also referred to as Sales or Income) forms the beginning of a company's income statement and is often considered the "Top Line" of a business. Expenses are deducted from a company's revenue to arrive at its Profit or Net Income.

Revenue Recognition Principle

According to the revenue recognition principle in accounting, revenue is recorded when the benefits and risks of ownership have transferred from seller to buyer or when the delivery of services has been completed.

KEY TAKEAWAYS:

1) List Down the Products / Services
2) Extract the Industry Market Shares
3) Unit Price
4) Quantity

COST OF GOODS SOLD

What is Direct Cost of Sales?

Direct cost of sales, more commonly known as cost of goods sold (COGS), is the amount of cash that a company invests in the production of a good or service it sells.

Direct cost of sales doesn't include rent, facility costs, or administrative expenses. On the other hand, they do include the following:

- Direct labor costs
- Utilities costs directly related to production
- Shipping costs
- Processing costs
- Amortisation of Intangible assets

KEY TAKEAWAYS:

1)Match the quantity in revenue
2)Direct associated costs to revenue
3)Manpower / HR Resources
4)Costs price / Backward calculation from GP Margin

INDIRECT OPERATING EXPENSES

What are indirect operating expenses?

Indirect operating expenses are costs used by multiple activities, and which cannot therefore be assigned to specific cost objects.

Instead, indirect costs are needed to operate the business as a whole.

Indirect costs do not vary substantially within certain production volumes or other indicators of activities, and so are considered to be fixed costs.

Examples of indirect costs are accounting and legal expenses, administrative salaries, office expenses, rent, security expenses, telephone expenses, and utilities.

KEY TAKEAWAYS:

1) Easier to estimate by ask the quotation from the vendors
2) Price expectation in different regions / country

PERSONNEL EXPENSES

KEY TAKEAWAYS:

1) Current market salary trend
2)Statutory payment
3)Bonuses, incentive & Claims
4)Increment & Promotion proposal
5)Number of staff & organisation structure

What is personnel expenses?

The definition of personnel expenses refers to the remuneration that a company or business makes to the workers under its charge, which goes beyond the payment of salaries.

In this section there is room for all kinds of retributions fixed and variable, compensation and mandatory contributions to the different Social Security regimes. Also included are social benefits that include all kinds of pensions and expenses of a social nature.

- Direct labor: here you include the employees that will be solely engaged with the production of the goods sold or services delivered. Think of engineers and technicians for companies selling tangible hardware products, a junior advisor in a consultancy company, or customer onboarding personnel in a SaaS business. These costs are not part of operating expenses but are part of the cost of goods sold.
- Sales and marketing: for instance sales managers, marketing managers, copywriters, social media experts, etc. These employees are part of your operating expenses.
- Research and development: R&D managers, (software) engineers, technicians, etc. These employees are part of your operating expenses.
- General and administration: here you include back office and C-level personnel, such as the CEO, CFO, CMO, secretaries, bookkeepers, etc. These employees are part of your operating expenses.

CAPITAL EXPENDITURES

What are capital expenditures?

Capital expenditures refer to funds that are used by a company for the purchase, improvement, or maintenance of long-term assets to improve the efficiency or capacity of the company. Long-term assets are usually physical, fixed and non-consumable assets such as property, equipment, or infrastructure, and that have a useful life of more than one accounting period.

Also known as CapEx or capital expenses, capital expenditures include the purchase of items such as new equipment, machinery, land, plant, buildings or warehouses, furniture and fixtures, business vehicles, software, or intangible assets such as a patent or license.

Typical capital expenditures depend on the type of business and industry. For start-ups, it is quite common to invest in computers, software, office equipment, plant & machinery.

Buying a building also apply as a capital expenditure.

KEY TAKEAWAYS:

1) Determine asset's useful life & depreciation rate
2)Capacity consideration
3)Type of financing & cashflows impact
4)CAPEX / LEASING – Depends on business strategy & model

FINANCING & TAXES

What is finance cost?

Financing cost (FC), also known as the cost of finances (COF), is the cost, interest, and other charges involved in the borrowing of money to build or purchase assets.

This can range from the cost it takes to finance a mortgage on a factory, to finance a car loan through a bank, or to finance a commercial trade transaction or plant & machinery.

KEY TAKEAWAYS:

1) Interest rate
2) Tenure of Financing
3) Types of Financing

What is tax?

Corporate taxes are collected by the government as a source of income.

Taxes are based on taxable income after expenses have been deducted

Corporate tax rates vary widely by country, with some countries considered to be tax havens due to their low rates. Corporate taxes can be lowered by various deductions, government subsidies, capital allowances, unabsorbed losses.

KEY TAKEAWAYS:

1)The tax rate in different tier of chargeable income & different country
2)Tax instalments

FUNDINGS & CASH FLOWS

Fundings

The fundraising rounds allow investors to invest money into a growing company in exchange for equity/ownership.

The initial investment—also known as seed funding—is followed by various rounds, known as Series A, B, and C.

A new valuation is done at the time of each funding round.

KEY TAKEAWAYS:

1) Funds required to fulfil future obligations
2) To funds the working capital
3) To funds the CAPEX

Cashflows

Cashflows able to highlight a company's cash management, including how well it generates cash.

The main components of the cash flows statement are cash from three areas: Operating activities, investing activities, and financing activities.

KEY TAKEAWAYS:

1) Income/Expenses carry in both PL & CF, the key distinction for both PL & CF is "timing"
2) Free cashflows is important for valuation

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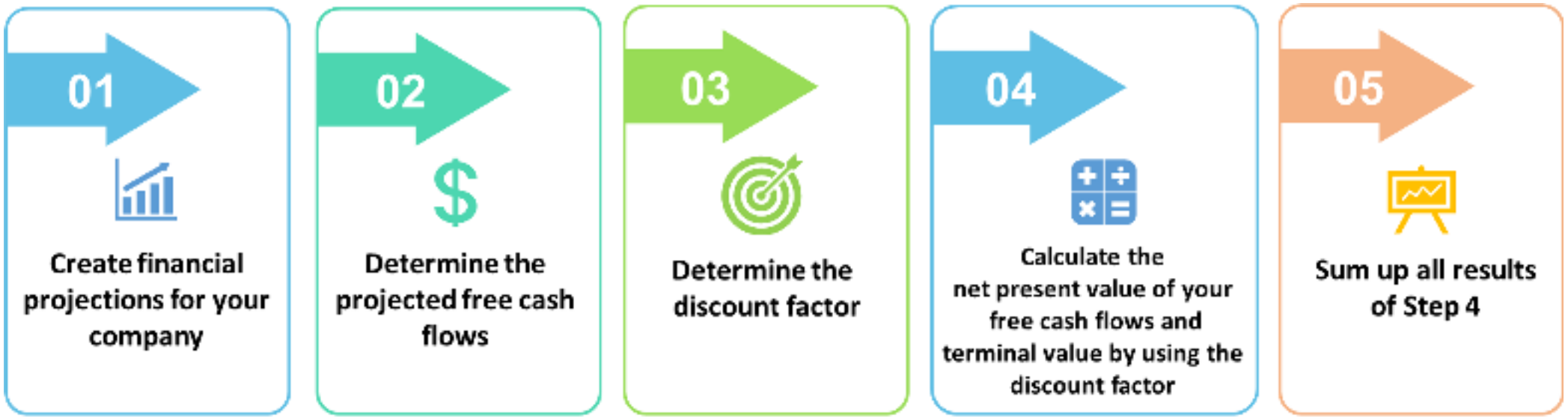
VALUATION

THE STEP-BY-STEP PROCESS TO DETERMINING WORTH

STEPS ON VALUATION

Valuations are an important tool in fundraising, in order to represent the value of the company investors seek to put their money in.

The key method of carrying out valuation is via Discounted Cash Flow Method.



Pros

- Good for early-stage start-ups with limited/ no revenue
- Values a firm on basis of future performance
- Good for those with no historical performance (new market/ product)

Cons

- Just a formula
- Quality of valuation depends heavily on input variables
- Depends on individual's ability to create an accurate forecast of the business

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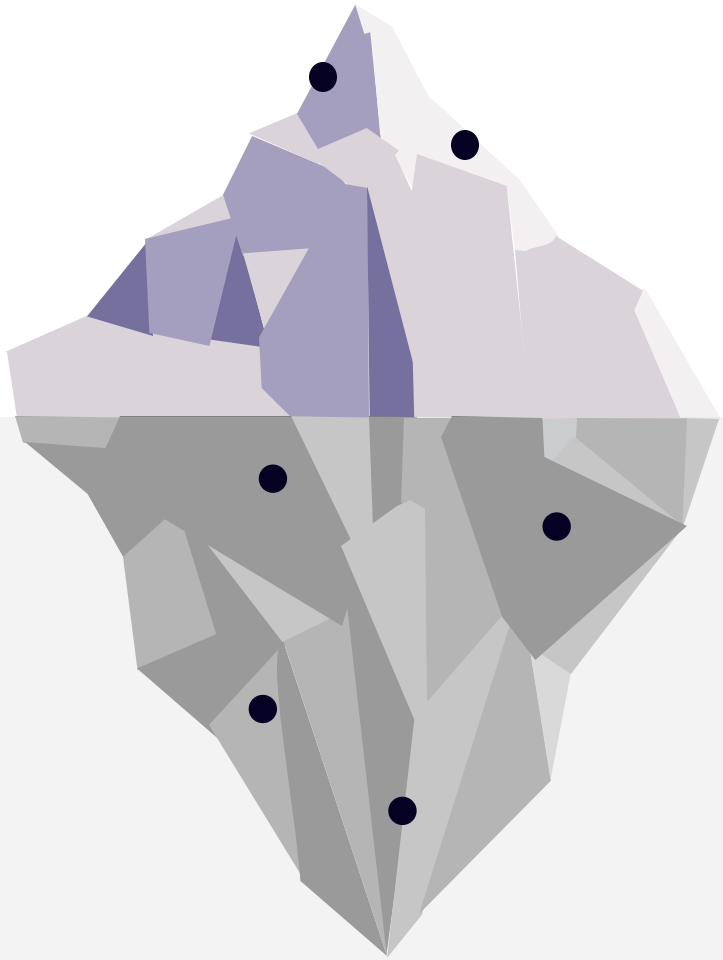
SCENARIOS & SANITY CHECK

REASONABLE PROJECTIONS TO BOOST INVESTOR CONFIDENCE

SCENARIOS & SANITY CHECK

ENTREPRENEUR tends to be **optimistic** people, which is a good characteristic to keep up the energy and push through where others might quit.



Create base case scenario

Create worst case scenario by extend the runway

Perform sanity check with reasonable and close to realistic assumption

UNFORTUNATELY,
In many cases, the life of an entrepreneur tends to be a bit more **disappointing** in practice than it is on paper

SANITY CHECK – Examples of Common Error

1. A mismatch between the financial model and the business plan: a financial model should resonate with the overall business strategy
2. Overoptimistic or very pessimistic revenue projections: check out section 'Revenues' on how to forecast sales
3. A funding need that is not adequately explained: make sure you include a breakdown of costs
4. Underlying assumptions that are not clearly defined: you should be able to provide clarification or proof to the numbers
5. Not enough employees as part of the personnel forecast: do not underestimate the number (and costs) of employees you need to build a fast-growing company
6. Revenue projections which are not aligned with the market size: by definition revenues cannot be larger than the size of the market
7. Operational expenses that are being left out: make sure expenses are aligned to your strategy
8. Operational expenses which are misaligned with the forecasted revenues: make sure expenses resonate with revenues
9. No realistic view of the gross, EBITDA and net margins: when speaking with investors, always be prepared to answer questions on your current and expected margins
10. Disregarding the importance of working capital: do not underestimate the effect of payment terms on your funding need

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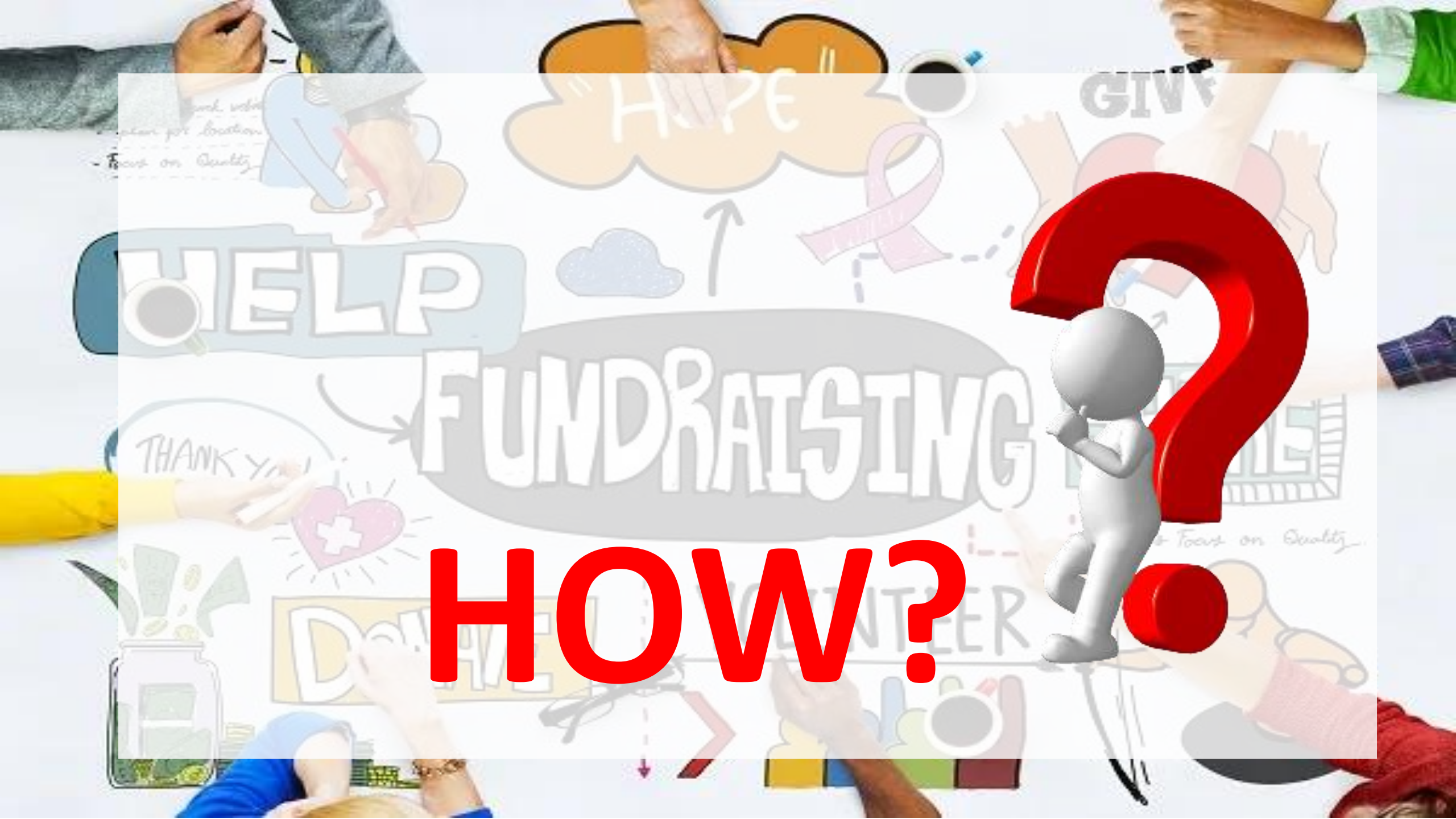
RAISING FUNDS FOR YOUR STARTUP

HOW TO MAKE YOURSELF ATTRACTIVE FOR INVESTORS


HELP
FUNDRAISING
HOW?

DEBT FINANCING

Financing via debt: an example of financing via debt can be a loan which you receive from a bank, a business or an individual where you agree on specific terms regarding payback and interest. For startups it can be difficult to receive a loan from a bank as they often do not meet the minimum criteria in terms of revenue generation and offering collateral.

Some advantages of using debt are as follows:

- The control of your company remains with you and your current shareholders.
- Interest on debt can be deducted from your tax.
- Debt often has a disciplining effect on a management team, as the resulting cash flows are limited so the management will be encouraged to be more efficient and create value.

EQUITY FINANCING

Financing via equity: an example of financing via equity is funding you would raise from an angel investor or a VC in return for shares of your startup. For startups, financing via equity is more common than debt financing, because receiving a loan can be difficult (banks are in general more risk averse).

Equity investors take more risk by investing money in a company in exchange for shares, meaning they could lose it all. Since an equity investor becomes a shareholder when he/she invests in your company you will (partly) lose control of the firm. Moreover, you will need to share your profits with your new shareholders and sometimes they might want to be actively involved in the management of your company as well.

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BUILDING YOUR CAP TABLE

UNDERSTAND THE INVESTORS' COST OF INVESTMENT

CAP TABLES

What is CAP tables?

A capitalisation table, also known as a CAP table, is a spreadsheet or table that show the equity capitalisation for a company.

A capitalisation table is most commonly utilised for star-ups and early stage businesses but all types of companies may use it as well. In general, the capitalisation table is an intricate breakdown of a company's shareholders' equity.

Cap tables often include all of a company's equity ownership capital, such as common equity shares, preferred equity shares, warrants, and convertible equity.

Cap Table Template

	Company Valuation			
	Total Value ($)	Per Share ($)	# of Shares	% of Total
Series A				
Pre-Money Valuation	$1,000,000	$5.00	200,000	22.2%
New Equity Raised	$3,500,000	$5.00	700,000	77.8%
Post-Money Valuation	**$4,500,000**	**$5.00**	**900,000**	**100.0%**

	Company Ownership Cap Table				
	Capital ($)	Common Shares	Pref. Shares	Total Shares	% Ownership
Shareholders					
Founders	$0	200,000	-	200,000	22.2%
[Investor Name]	$100,000		20,000	20,000	2.2%
[Investor Name]	$250,000		50,000	50,000	5.6%
[Investor Name]	$100,000		20,000	20,000	2.2%
[Investor Name]	$1,200,000		240,000	240,000	26.7%
[Investor Name]	$250,000		50,000	50,000	5.6%
[Investor Name]	$100,000		20,000	20,000	2.2%
[Investor Name]	$500,000		100,000	100,000	11.1%
[Investor Name]	$400,000		80,000	80,000	8.9%
[Investor Name]	$250,000		50,000	50,000	5.6%
[Investor Name]	$350,000		70,000	70,000	7.8%
Total	**$3,500,000**	**200,000**	**700,000**	**900,000**	**100.0%**

CAP TABLES

KEY TAKEAWAYS

- A capitalization table is a table showing the equity ownership capitalization for a company.
- The capitalization table is essential for financial decisions involving equity ownership, market capitalization, and market value.
- Capitalization tables help private companies maintain the calculation of their market value. In the private market, they are also important for shareholder reporting and new capital issuance marketing.

CAP TABLES

Why Do Startups Need Cap Tables?

Startup companies generally have only a small number of equity owners. These often include the founders, friends and family of the founders, and angel investors. Keeping track of who owns what stake in the new company is important as it grows and raises capital from other sources such as venture capitalists, and ultimately to the public via an IPO. The cap table will be updated after each subsequent funding round, showing how ownership becomes diluted and spread across new owners as it grows.

Company is constantly evolving,
therefore,
cap table must be continuously update!

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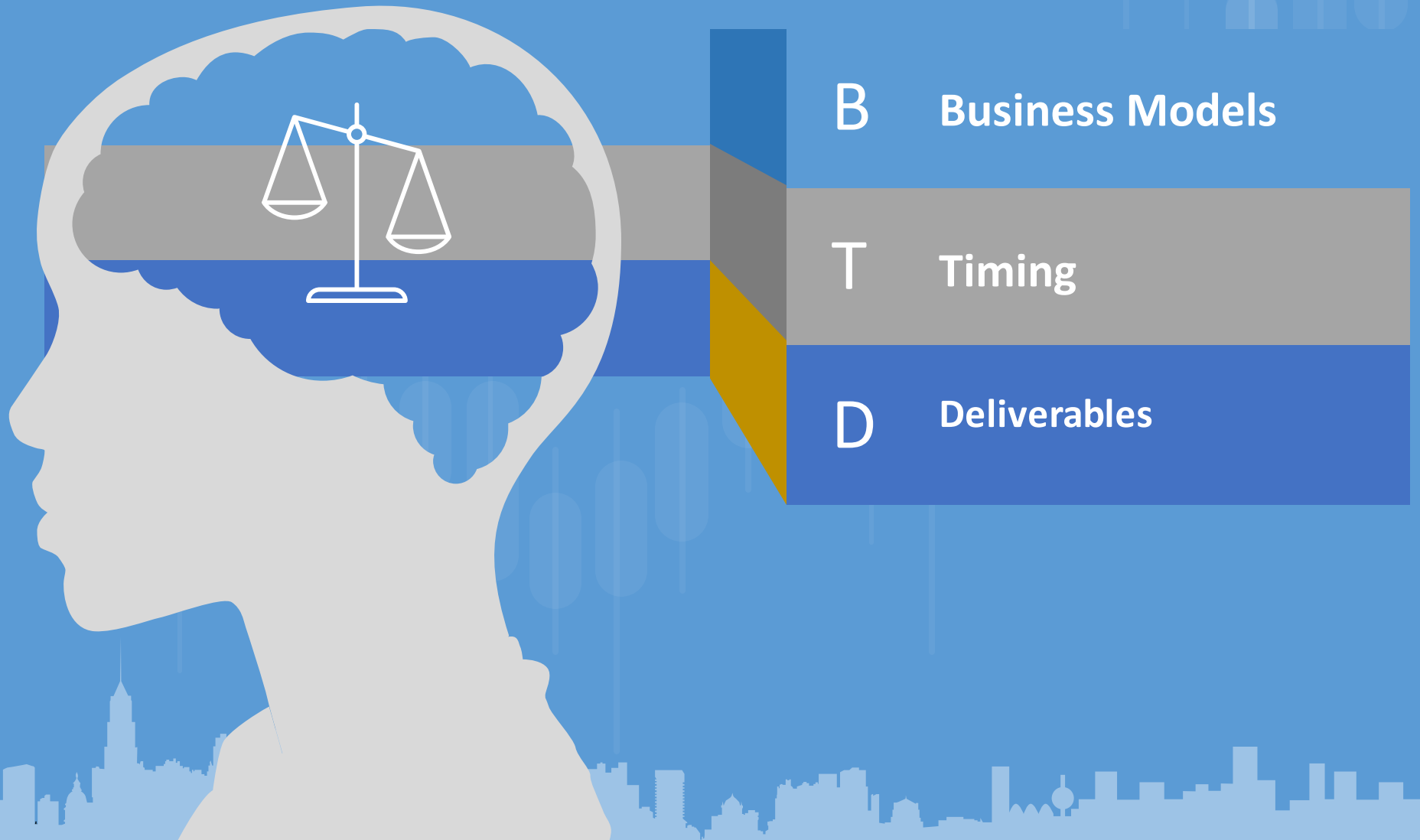
KEY CONSIDERATIONS

3 PRACTICAL ELEMENTS TO KEEP IN MIND



B Business Models

T Timing

D Deliverables

THANKS!

Any questions?

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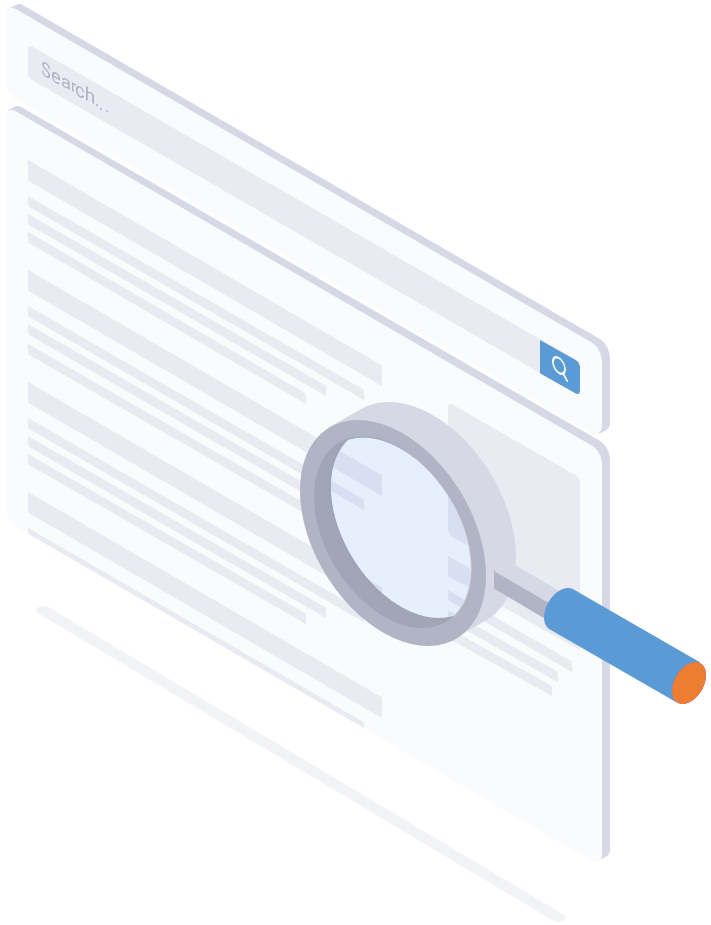

Ivan is a businessman that engaging in the business of SaaS model for the IT products solutions.

He currently own 100% equity interest in his company, Super Solutions Sdn Bhd with 100,000 shares @ RM1/share.

He plan to go for fund raising exercise to expand his business with the target as follows:

1) Series A Funding for target of 20% equity with total company valuation RM100 million by 31 December 2022;
2) Series B Funding for target of 10% equity with total company valuation RM180 million by 31 December 2023;

He also plan for the employee share option scheme to 2 Key Management personnel, KMP1 & KMP2 with the proposal as follows:

1) KMP1 & KMP2 offer the option of shares for 1% equity interest with special consideration @ total company valuation of RM10 million by 31 March 2023

CASE STUDY

In the actual events, the final outcomes as follows:

1) Series A Funding raise RM10 million by 31 December 2022 from 3 investors, A1 - RM5 million, A2 - RM3 million, A3 - RM2 million
2) KMP1 exercise the share option proposal on 31 March 2023
3) Series B Funding successfully raise RM9 million by 31 December 2023 from 4 investors, B1 - RM3 million, B2 - RM2 million, B3 - RM1 million, B4 - RM3 million
4) B2 selling all his shares to B3 for the sales consideration sum of RM3 million on 30 June 2024

Please prepare
cap table and show the updates on 30 June 2024