

"An entrepreneur without funding is a musician without an instrument." — Robert A. Rice Jr.

"Nothing ever happens for dreamers and talkers; opportunity must be seized or created by sheer force of will and ambition."

- Robert A. Rice, Jr.



Some definitions

Debt: is loan that is to be repaid with interest.

Equity shares: each equity share represents a part ownership in a venture and is issued in exchange for payment to it. The total ownership of any venture is represented by its equity capital divided into small value shares. The ownership rights are proportional to the number of equity shares held by an individual or company and it dictates the influence on decision making by the company. From a company perspective, there is no obligation of repayment of the equity share and no interest is to be paid. The shareholders received dividend whenever the management announces. It is also referred to as common stock.

Preference shares: Has features of both debt and equity. It is company share without voting right and it attracts compulsory dividend almost as interest except that the dividends are payable out of profit, else it gets accumulated.

Today's Topic: Understanding the Funding Mathematics

In the previous message, we discussed the changes in the percentage holdings of cofounders and investors when a new round of investments is made. Now, let's delve into the topic in terms of the number of equity shares.

Equity share capital refers to the funds invested by the company's owners, and the company issues a certain number of shares to individual owners based on the proportion of their investments. Each share has a par value or face value, which is determined by the founders and can range from ₹1 to any amount. The most commonly used face value is ₹10.

For instance, if an owner invests ₹1,00,000/- as equity in a business, s/he would receive (1,00,000 ÷ 10) = 10,000 shares, assuming that there is no share premium. In the beginning, the share's only value is the money paid by the proposed shareholder. However, as the company progresses in terms of product development, customer acquisition, positive cash flow, etc., the total value of the company increases. The value of each share is calculated by dividing the total value of the company by the number of shares, which means the value of a share increases over time. The value may reduce if the company is making losses.

In special cases, cofounders may assign specific shares to particular cofounders in exchange for their unique contributions, such as technologies, skills, or experience. In the interest of simplicity, we won't consider such cases in this note.

When the three co-founders Aroon, Baroon, and Daroon, invest a total of ₹5.0 lakh as equity capital of face value of ₹10/- per share in a new venture, a total of 50,000 shares are CREATED and allocated to them and their percentage holdings are as follows:

Cofounder	Amount invested	Number of shares	% holding
Aroon	₹1.0 lakh	10,000	10,000/50,000= 20%
Baroon	₹ 1.5 lakh	15,000	30%
Daroon	₹ 2.5 lakh	25,000	50%

It is important to understand that the value of a venture is held in its equity shares. At the outset, the value of the above enterprise is only \$5.0 lakh i.e. the investment made by the shareholders. During the subsequent rounds of investments, shares are allocated based on the valuation of the start-up and the amount of money invested by the investor(s). Suppose the company makes the first prototype, maybe the MVP, and an investor, say uncle Faroon, values the company (along with the technology) at \$100 lakh (\$1 crore). This is the pre-money value. Now the moot point is how much money you need to raise for reaching a particular milestone (and not how much the investor would like to invest). Say, you need \$20 lakh. Suppose that Uncle Faroon invests this \$20 lakh in the company. The pre-money value remains \$100 lakh. The post-money value = pre-money value + the money invested by the investor (here uncle Faroon) = 100 + 20 = \$120 lakh (1.20 crore). The percentage holding of uncle Faroon in the company = his investment divided by the post-money value = 20/120 = 16.67%. What is the percentage holding of the founders (combined) after this round of investment? It is = 100 - 16.67 = 83.33%.

From the above data, the company will determine the number of shares to be created and allocated to the uncle.

The three cofounders together held 50,000 shares before this round of investment. They will continue to hold 50,000 shares after this round of investment. Their holding will never change automatically, it may change only under special event when they invest fresh money in the company.

So, these 50,000 shares, which was 100% of the company, will now constitute (100-16.67) = 83.33%. Therefore, the total number of equity shares after this round of investment should be = 50,000/0.8333 = 60,002.4 or say, 60,003. So, uncle will receive (60,003 - 50,000) = 10,003 number of shares (new shares created and given to uncle for investing ₹20 lakh), which is roughly 16.67% of the total shares of the company.

What is the value of each share now?

Total value of the company = ₹1,20,00,000

Number of outstanding shares = 60,003

So, value of one share = 1,20,00,000/60003 = 199.99 or roughly 200, which is known as the market value (face value is 10).

[This means that the value of each share, which was only ₹10/- at the beginning has now appreciated to ₹200. In case the cofounders want to receive new shares, they have to invest

₹200 for receiving one additional share. Also, notice the difference between the face value and the present market value.

The same calculation for the next round of investment is as under: Basis:

Angel Haroon invests ₹100.0 lakh at a pre-money valuation of ₹400 lakh. His percentage holding in the company is = 100 (investment by the angel)/(100 + 400) = 100/500 = 20%. The pre-money valuation determines the percentage of equity that an investor demands.

What is the percentage holding of all other existing shareholders? = 100 - 20 = 80%. How many shares were outstanding before this round of investment? = 60,003.

Therefore, now, 60,003 number of shares = 80% of the shares.

Total number of shares after ₹100 lakh investment = 60.003/0.80 = 75,003.75 or say, 75,004. Haroon receives = 75004 - 60003 = 15,001 number of shares (or 20% of 75,004 number of shares).

Total value (market value) of the company is the post-money value, which is ₹500 lakh. The value of the company is held in its equity shares. Therefore, value of each share now = ₹500,00,000 (i.e the post-money value) \div 75004 (current number of shares) = ₹666.63 per share (face value of ₹10 each).

This (₹666.63) is the market value of each share of the venture with a face value of ₹10 each.

New ventures approach different types of investors as they make progress. The most formal investors are angels, venture capitalists, and private equity funds. These investors may prefer to invest their money in three different instruments, namely, preference share capital, equity capital, or debt, or a combination of them (including grant). Investments in preference capital and debt may have preconditions to be optionally converted into equity capital after a scheduled time or at a predefined event.

If the investors invest in equity shares, the percentage holding, and the distribution of liquidation proceedings are straightforward. After payment to secured creditors and operational creditors, whatever money is left is distributed pro rata, i.e., proportional to their equity holding. However, angels and VCs usually prefer to invest in preference capital and the estimation of the share of money under liquidation event is subjected to the specific terms & conditions of the preference capital.

The forms/structures of the two conditions determine the amount to be received by the investors in the event of liquidation:

1. Liquidation preference, 2. Participating or Non-participating

Liquidation preference (how they decide to get their principal money back): Liquidation preference delineates how many times of the invested fund the investors should get back.

Liquidation preference can be of the following types

- No liquidation preference (The investor receives zero times their investment under this clause. But they will receive money under the other clause, i.e., participating clause)
- 1X liquidation preference: get exactly what they invested.
- nX liquidation preference: the investors are to receive 'n' times the money they invested.

Participating & Non-Participating (receiving money proportional to % holding in the venture)

- Participating means the investors' money is converted into equity to determine their percentage holding and the liquidation proceeds are distributed between the equity shareholders on a pro-rata basis (proportional to the equity holding percentage).
- Participating may or may not coexist with liquidation preference. If there is
 no liquidation preference, the money is distributed based on percentage
 holdings. Alternately, say there are 2X liquidation preference and
 participating preference. The investors will take two-times their invested
 amount first. Whatever will be left, they will share it pro-rata with other equity
 shareholders.

Let us understand with an example:

Say a business angel (BA) group invests ₹50 lakh for 25% of a venture. The venture is sold for ₹100 lakh.

Case I: no liquidity preference (implicitly means the BA has invested in participating preference shares)

The BA group would receive 25% of the proceeds, i.e., ₹25 lakh, and lose the rest of their original investment. The entrepreneur or common shareholders would receive the remaining ₹75 lakh.

Case II: BA group has a 1X liquidation preference and non-participating shares

The term 1X liquidation preference means one-multiple of the amount invested. Thus, the BA group would receive ₹50 lakh that they originally invested. The entrepreneur or common shareholders would receive the remaining ₹50 lakh. [If the investor would have 2X liquidation preference, they would receive 2 times their investment, i.e. 2 X 50 =₹100 lakh, meaning that they would take the entire ₹100 lakh and the cofounders would receive nothing. The same will be the case if there is 3X or more liquidation preference. Of course, investors will receive a maximum of the money available and no more.

Case III: BA group negotiates a 1X liquidation and 'participating preference': Here, both liquidation preference and participating preference are present.

By dint of the 1X clause, the BA group receives one-time (one-multiple) their invested sum, i.e., ₹50 lakh. This money is given to the investor before any other distribution. Remaining money = ₹100 - ₹50 = ₹50 lakh. Owing to the 'participation' clause the investor will now share the remaining amount on a pro

rata (proportional) basis with the owners of the company. They hold 25% of the company and thus, receive 25% of the remaining money. So, the investors receive a further sum of (25% of 50L=) ₹12.5 lakh, taking the total to ₹62.5 lakh. The entrepreneur or common shareholders would receive only ₹37.5 lakh.

There may be more complex conditionalities that would protect the interest of the investors. Founders must read the agreement carefully to avoid nasty surprises later.