Scorecard Method of Valuation “The Subjective Analysis of Valuation”

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1 Introduction

Storytelling and Valuation. The good valuation is always not just about numbers it is a combination of the story and the numbers, which is very well explained in the book by Aswath Damodaran, Narratives and Numbers, The value of Stories in Business. Valuation as a bridge between numbers and stories is very represented in the Fig. 1 below.

1.1 Valuation as a Bridge Between Numbers and Stories

And in the same book Damodaran has very well-articulated the process of coming with valuation from the story. Figure 2 describes the story-to-numbers process

It becomes more important for us to understand the story which the founders are trying to narrate while implementing the Scorecard method of valuation. Scorecard method deals with the translation of this story into numbers.

So our objective of this paper is to understand this process of converting the story into numbers using Scorecard method. I have dealt with this topic in two stages.

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S. Derindere Köseoğlu (ed.), *A Practical Guide for Startup Valuation*, Contributions to Finance and Accounting, https://doi.org/10.1007/978-3-031-35291-1_9

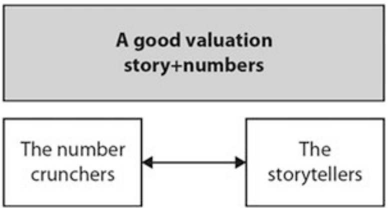

Fig. 1 Valuation as a bridge between numbers and stories. Source: Aswath Damodaran, Narratives and Numbers

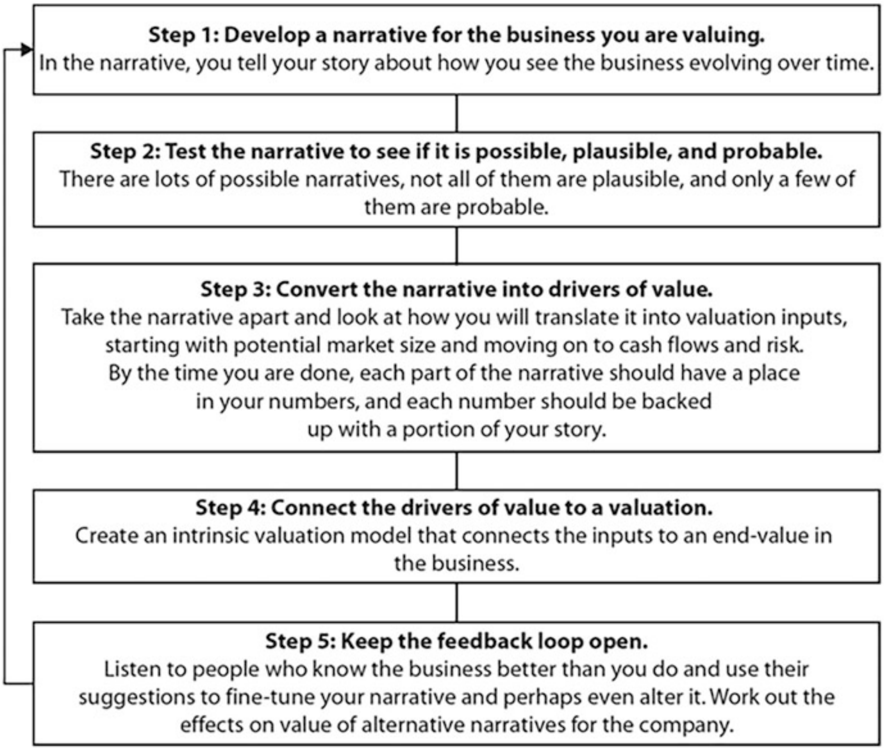

Fig. 2 The story-to-numbers process. Source: Aswath Damodaran, Narratives and Numbers

Firstly, we will understand the historic background and origination of this method, which is introduced by an Angel Investor community in the US and also understand the Scorecard Methodology developed by this Angel Investor community.

Secondly, I have used my experience and research to improve upon the Scorecard Method by modifying few of the criteria. The modification is a result of my research in this space, since the current scorecard method doesn't consider few more important qualitative factors which are vital, I have introduced the same in the modified scorecard model.

I have applied my experience of working for 24 years in various large corporates. I have had experience working in start-up where I led the finance function, I was instrumental in getting the funding at initial stages and worked closely with the Founders to grow and implement the Operations.

I was involved in handling various global business operations, handled various global projects and worked with global stakeholders when working with ADP & Amazon. I had the opportunity to learn from the business strategy, organization culture. I have applied the experience and learnings, which shaped me to think as a matured and holistic business professional. And have approached the topic from the entrepreneurial thought process to develop an appropriate learning methodology for valuation.

To summarize this paper is a result of the study of the scorecard method of valuation created by the US Angel Investors and also the modified scorecard method is a result of my practical experience working with various multinationals and the result of my curiosity in learning about entrepreneurship from a strategic perspective.

2 Background

Scorecard methodology was originally written in May 2001 and revised in January 2011. The method is detailed in the book written by William H. Payne published by Bill Payne in 2006 "The Definitive Guide to Raising Money from Angels". The Ohio Tech Angels adapted this valuation methodology in 2008 and named it Bill Payne method. This was further expanded in 2010 during a half-day workshop of the Angel Capital Education foundation, further renamed it the Scorecard Method. Some refer this as the Benchmark Method.

The angel investors in the US put personal investment at risk by investing in start-up companies. Generally, these investors invest between $25,000 and $1,00,000 in a round summing to $250,000 to $1,000,000. (These numbers are based on the article written in 2011, so we need to consider the inflation and other aspects which will change these numbers to the higher investments as of today.) In 2011, the valuation of pre-revenue start-ups was around $1 to $ 2 million and this used to be established as a result of negotiation between entrepreneurs and angel investors. For this amount of investment angels use to expect 20–40% stage and expected return on investment of 20–30 X within a period of 5 to 8 years.

Angels used to invest in 10 or more diversified companies, spreading their investment over few years. It is learnt through experience that 50% of these companies tend to fail (with returns less than the capital invested), and 3 to 4 companies may result in an average return on investment of 1X to 5X, and 1 or two of these 10 companies would result in 10X to 30X of initial investment over a period of 5 to 8 years of time. Summed up with the overall portfolio of the investor yields approximately 25% per annum. These outcomes have been validated by "Returns to Angel in Groups" by Professor Rob Wiltbank in November 2007. Angels usually invest in only those companies in which they are familiar. Diversification is not the focus of the angels unlike public markets.

In order to achieve a reasonable return on investment, an angel must ensure to invest in 1 or 2 companies with the ROI of 20–30X. While it is not easy to predict this early on.

3 Scorecard Method Explained

In the context of valuing Start-ups, the scorecard method can be a useful tool as traditional discounted cash flow analysis may not be applicable due to a lack of historical financial data and uncertain future cash flows. The scorecard method can provide a more qualitative and forward-looking assessment of a Start-up's value.

In a Start-up valuation scorecard, metrics such as the size of the target market, the strength of the business model, the quality of the management team, the level of competition, and the stage of the product development cycle can all be used to score the company. These metrics can be weighed and scored based on their importance to the success of the Start-up.

The overall score from the scorecard can then be used to estimate the value of the Start-up by comparing it to similar companies or by using multiples such as price-to-sales or price-to-earnings ratios. It is important to note that the scorecard method of valuation is subjective and may not provide a precise estimate of value. However, it can provide useful insights and a starting point for more in-depth valuation analysis.

The scorecard method of Start-up valuation is a method used to evaluate the potential of a Start-up by assigning a score to various elements of its business. The elements that are scored can include:

1. **Strength of the Team**

   Strength of the team can be ascertained by reviewing the experience and track record of the founders. While the current trend is that many youngsters are getting into entrepreneurship this point we may have to approach it differently. The team should consist of the required knowledge, passion, experience as necessary, commitment, clarity of thought and ownership. Ideally, the founders team should have the mix of all kinds of skillsets such as strategy, operational, marketing and technology.
2. **Size of the Opportunity**

   Size of the opportunity refers to the market potential, target addressable market (TAM) and the market potential. If the idea is unique and there is huge untapped market in this segment then the start-up holds better chance to capture the market. Also on the other hand if the start-up is entering into the well-organized market where the required awareness of the product and technology has been already created by the other players in the industry, even then that becomes easier to tap the market since the predecessor innovators have done the work required, making it easier for the start-up to enter the marker.

3. **Competitive Environment**

   Competitive environment refers to the level of competition and barriers to entry due to competition. And how strong is the start-ups strategy to address the competitive environment.

4. **Product/Technology**

   Protection of the product/service refers to the Intellectual Property rights the company has acquired, which makes the company much stronger chances to get the higher valuation.

5. **Marketing/Sales Channels/Partnerships**

   Market penetration strategy and any signed contracts with the customers will help the company get higher chance of the valuation, due to guaranteed revenue possibilities.

6. **Need for Additional Investment**

   Funding required can be justified by the current level of capital structure with details of the founders capital infusion, with requirement of the funding justified with the reason for fund raise and the application fund.

4 Scorecard Method: Illustration

Using the scorecard valuation method, we can compare the target company with the angel funded Start-up ventures average valuation which is recently funded, and arrive at pre-money valuation of the target company. We must choose the comparable companies which are at the similar stage of lifecycle (which is pre-revenue Start-up).

As a first step, identify the pre-money valuation of the companies in that region which is at pre-revenue stage and which is in the similar business sector of the target company. Mostly the pre-money valuation is on similar scale with less variation. Following is a result of an informal survey of angel groups taken by Bill Payne in 2010, pre-revenue companies of different regions of North America. Table 1 below depicts the output of of the survey.

From Table 1 we can see that average pre-money valuation of the pre-revenue deals is $1.67 million, mode is $1.5 million. The range is with low of $1.25 million, to high of $2.7 million.

Taking the above results as our base we will use the mode value of $1.5mn for our calculation.

Taking this study forwarded we will now ascertain the valuation using the Scorecard Method by using the following factors.

Determining the average pre-money valuation of similar companies, based on geography (Tables 2 and 3).

Considering $ 1.5 million as the industry average. Considering the above example, the pre-revenue valuation of a setup is 1.5 into 0.83 which amounts to 1.245

Table 1 2010 Angel Valuation Survey

2010 Angel Valuation Survey	
(Pre-money Valuation of Pre-revenue Companies)	
Pre-money	
Angel Group Valuation (In Million Dollars)	
Tech Coast Angels	1.25
Phenomenelle Angels	1.3
New York Angels	1.3
Frontier Angel Fund	1.4
DC Dinner Clubs	1.5
Vancouver Angel Network	1.5
Midwest Groups (Okabe)	1.5
RAIN Funds	1.65
Ohio TechAngels	1.75
Band of Angels	1.75
Life Science Angels	2
Alliance of Angels	2.1
Common Angels	2.7
Mean	1.67
Median	1.50
Mode	1.50

Source: The article Scorecard Valuation Methodology Establishing the Valuation of Pre-revenue, Start-up Companies by Bill Payne (https://seedspot.org/wp-content/uploads/2021/02/Scorecard-Valuation-Methodology.pdf)

Table 2 Weights of the criteria

Criteria	Weights[a]
Strength of the team	0–30%
Size of the opportunity	0–25%
Product/Technology	0–15%
Competitive environment	0–10%
Marketing/Sales channels/Partnerships	0–10%
Need for additional investment	0–5%
Others	0–5%

Source: The article Scorecard Valuation Methodology Establishing the Valuation of Pre-revenue, Start-up Companies by Bill Payne (https://seedspot.org/wp-content/uploads/2021/02/Scorecard-Valuation-Methodology.pdf)

[a]Weights can be modified based on the user requirements

million. The above valuation is derived using the 2010 angel valuation survey (taken from the academic reference—Bill Payne Score Card Method Original Article, for the latest valuation you will need to compute these averages using the latest investment statistics in the applicable markets) and used this average valuation for the target company which is into Healthcare technology cum Fintech industry in

Table 3 Adjusted weightage

Criteria	Weights[a] (%)	Target company (%)	Adjusted weightage
Strength of the Team	30	81	0.24
Size of the Opportunity	25	85	0.21
Product/Technology	15	93	0.14
Competitive Environment	10	100	0.10
Marketing/Sales Channels/ Partnerships	10	88	0.09
Need for Additional Investment	5	50	0.02
Others	5	50	0.03
			0.83

Source: The article Scorecard Valuation Methodology Establishing the Valuation of Pre-revenue, Start-up Companies by Bill Payne (https://seedspot.org/wp-content/uploads/2021/02/Scorecard-Valuation-Methodology.pdf), relevant modifications done by the author to the scoring
[a]Weights can be modified based on the user requirements

India (which is considered for the reference learning point of view). The detailed analysis of the target company valuation is detailed further in this paper.

5 Modified Scorecard Method (Researched and Created by the Author)

While the above is the scorecard method which is currently used in the market, I wanted to improvise on the same by introducing another few of the qualitative parameters which are having major impact. Few of the factors which we may have observed in many situations why a start-up fails is mostly due to inappropriate business model, not aligning the competitive advantage to the current market conditions, lack of focus on financial modelling and unit economics, and poor execution and bad governance. We have seen many such examples of start-up failures. So, it is pertinent to bring in these factors into the scorecard method. Below is the modified scorecard method by including all these parameters. This method is researched and created by the author of this article. Find below the criteria of modified scorecard method (Table 4).

1. **Power of an Idea (Uniqueness, Technology Enabled)**

   In the current scenario of Start-up revolution, the uniqueness of the idea and utilization of technology is most important aspect. It can be a new idea or no issues in getting into the market where already there is huge competition, so you don't have to reinvent the wheel of creating the market and awareness. Usage of Artificial Intelligence (AI), Machine Learning (ML), Application programming

Table 4 Criteria

Criteria
Power of an Idea (Uniqueness, Technology enabled)
Strength of the founding team
Size of the Opportunity (Total Addressable Market)
Competitive advantage—Business Model defined
Strategy Execution and Governance mechanisms
Organisation culture
Financial Modelling and Unit Economics

Source: Author's own creation

interface (API), Mobile Application (App), and Block Chain are few relevant technologies which are used as per the requirement of that specific industry.

To understand and get the flavour of the power of a tech-enabled idea, let us look at few examples, following are some of the top business ideas that changed the world:

Apple Inc.—revolutionized the personal computer and mobile phone industries.
Amazon—transformed the retail industry with its online shopping platform.
Google—created the world's largest search engine and expanded into various technology markets.
Facebook—revolutionized social networking and changed the way people communicate and share information.
Uber—disrupted the taxi industry by creating a ridesharing platform and popularizing the concept of the sharing economy.
Tesla Motors—electric vehicles that are leading the shift towards sustainable transportation.
Airbnb—disrupted the hotel industry by creating a platform for short-term home rentals.
Alibaba—one of the largest online and mobile commerce companies in the world, particularly in e-commerce and retail.
Netflix—changed the way people consume media and entertainment by offering a subscription-based streaming service.
Microsoft—created the world's first widely used computer operating system and dominated the personal computing market.

Uniqueness of the Idea

In the current disruptive business world, the kind of ideas which are being thought about by the entrepreneurs are quite unique and unthinkable. Here are few Start-ups with unique ideas emerged in 2022.

Linktree is a freemium social media reference landing page developed by Alex Zaccaria, Anthony Zaccaria, and Nick Humphreys, headquartered in Melbourne and Sydney, Australia. Founded in 2016, it serves as a landing page for a person or company's entire associated links in social media, which rarely allows linking to multiple sites. The site was inspired by the developers' annoyance with social media that can't allow multiple hyperlinks.

Funnel Marketers rely on data to deliver insights to engage customers. As data grows, so does the pool of potential knowledge. Does more of it mean greater understanding? No! Data without context is meaningless—or even misleading. Funnel takes all your data and puts it where you need it. With Funnel know what's driving value, make quick, confident decisions and improve your business. Powered by Funnel, get your data at all times, business-ready!

So Syncd Based on the 16 personality types theory, So Syncd is the first dating app to connect compatible personality types. By pairing couples who have just enough similarities to understand each other and just enough differences to create a spark, we help you find that exciting, meaningful relationship that you've been looking for.

Manychat Engages Customers Instantly. Automate interactive conversations in Instagram Direct Messages, Facebook Messenger, and SMS to grow your brand.

Group Greeting At Group Greeting, allows you to create a digital card and have multiple people sign it. You'll never have to worry about running out of space to sign or losing the card. The days of passing around a manila folder are over.

2. **Strength of the Founding Team**

   Strength of the team can be ascertained by reviewing the experience and track record of the founders. While the current trend is that many youngsters are getting into entrepreneurship this point we may have to approach it differently. The Team should consist of the required knowledge, passion, experience as necessary, commitment, clarity of thought and ownership. Ideally, the founders team should have the mix of all kinds of skillsets such as strategy, operational, marketing and technology.
3. **Competitive Advantage: Business Model Defined**

   Competitive Advantage

   Start-up should be very clear on the way in which competitive advantage will be achieved. If we refer to the Michael Porter's competitive advantage, Porter describes three ways of gaining the competitive advantage: Differentiation, Cost and Focus.

   Differentiation is the matter of product or service differentiation and uniqueness of the product and service offering.

   Cost advantage is all about pricing the product competitively, here even if your product or service offering is not unique you compete by charging less/offering discounts, etc.

   Focus is where you bring in the combination of differentiated product or service and also cost advantage. Or you focus on a specific section of the market. Focus defined uniqueness of the specific companies' business model which makes it unique and helps positioning in the market and acquire the market.

Business Model

One of the important reasons any Start-up fails is having wrong business model or changes in business model without valid reason in the journey. Having the right business model and getting it right is so important.

Most successful business model in the recent years is marketplace business model. This model enables you to scale faster, since you are utilizing technology by being on the internet, utilizing the ecommerce platform, and next is not doing everything yourself and by only connecting the buyer with the seller, you are acting as an intermediary. Probably we can say Amazon revolutionized this model by inventing and making it successful and everyone now is following the footsteps of Amazon and then improvising on the same.

In recent years, some of the emerging popular business models are:

Subscription-based model: Companies offer access to products or services for a recurring fee, often on a monthly or annual basis.

Freemium model: Companies offer a basic version of their product for free, with paid upgrades for premium features.

Marketplace model: Companies create an online platform that connects buyers and sellers, often taking a commission on transactions.

Sharing economy model: Companies enable individuals to share underutilized assets, such as cars, homes, or tools, through a peer-to-peer platform.

Direct-to-consumer (D2C) model: Companies bypass traditional retail channels and sell products directly to customers online.

Artificial intelligence-powered model: Companies use AI and machine learning to automate various business processes, improve customer experience and drive efficiency.

On-demand model: Companies offer products or services that can be ordered and delivered on-demand, usually through a mobile app.

These are just some of the examples and new business models are constantly emerging as technology and consumer behaviour evolve.

Amazon Business Model Example

Here is an example of Amazon Business Model. One of the key strengths of Amazon is its business model which was drafted by Jeff Bezos when he was travelling in the flight on a napkin in early 2000s which is still valid, that is the strength and clarity the business model should carry which can stand the test of times. Here is the business model of the Amazon. Though Amazon entered into new businesses such as AWS and other verticals, the core business model of their Ecommerce business fuelled the growth of the business and the reason behind the market capitalization the company has achieved as of today (Fig. 3).

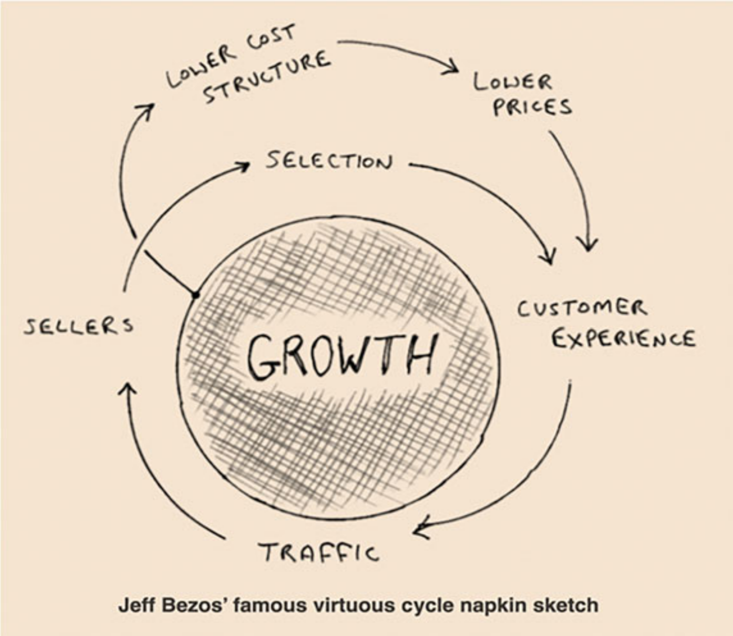

Fig. 3 Jeff Bezos' famous virtuous cycle napkin sketch. Source: Amazon business model

4. **Strategy Execution and Governance Mechanisms**

   Strategy Execution—Most of the cases where the failure of the start-up is not due to idea strength, it is due to the inappropriate business model and loose execution of the strategy. The interest of the founders and management die down during tough times and also due to poor planning the execution fails leading to the failure of the start-up, so it becomes more important to ensure and measure the executability strength. To measure this, we could look at the overall strategy in terms of what kind of business model is being adopted, strength of the business model. Best practices and industry frameworks implemented, to name a few Agile, Lean, Six Sigma, and Capability Models. Also, the latest technologies adopted such as Artificial Intelligence, Machine Learning, Analytics, Robotic Process Automation, etc.

   Governance Mechanisms—Jeff Bezos says in his famous speech to the employees, the good intention doesn't work and mechanism works. This is very much followed to the core ingrained in the Amazon work culture.

   What it means is that if someone has great intentions that is good, however there needs to be mechanism/process to implement and track the results and continuously improve. This is where the governance frameworks need to be implemented in all areas of the organization such as Business, Marketing, Operations, Financial aspects of the company.
5. **Organisation culture**—Organization culture becomes very important aspects in the success of the enterprise. Most of the organizations fail financially not

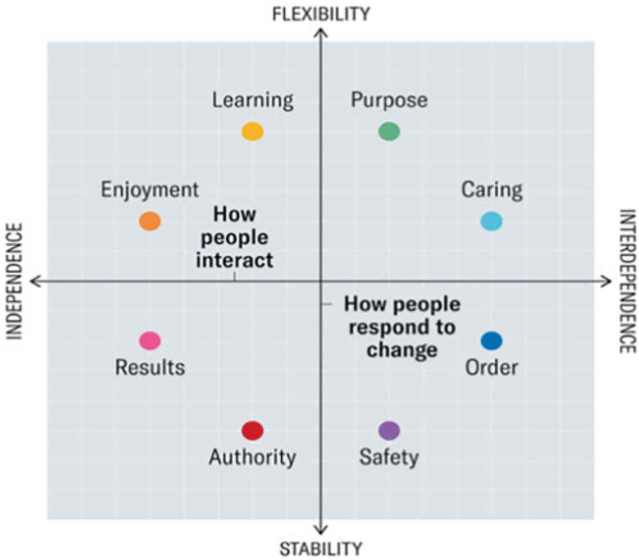

Fig. 4 Factors that influence the organization culture. Source: Picture courtesy—HBR (Harward Business Review article)

because of the issue with their business model, idea or technology, it is due to poor organization culture. Whatever needs to be achieved is through the people/employees/team so it becomes pertinent to keep the culture at its best to achieve the results to all stakeholders of the company. Organization culture brings in great employee engagement which is a key to the success of an organization.

Top few factors that influence the organization culture are as below (Fig. 4).

Here is the snapshot of the organization cultures of Amazon and ADP, Amazon is a renowned name worldwide. ADP is an HCM company and world leader in its space, and is well known in the corporate world. These are two organizations which I have picked up to demonstrate how important the Mission, Vision, Values, organization principles and its execution to the core, governance model, which brings sustainable success to the organizations. This is something every start-up should focus on in addition to the business idea, technology and passion to achieve exponential growth.

One of the key aspects of the Amazon culture is its focus on the leadership principles. Unlike most of the other organizations where the values are in the books and not ingrained in the culture, Amazon has integrated all its leadership principles into the organization culture, which helps them to walk the talk and achieve the results year on year and has created the history. In Amazon it is said "Work hard, have fun, create history". Here we go through below the snapshot of Amazon Leadership Principles. As I have worked in both these organizations I am sharing my experience as a testimonial of success factors associated with these company cultures.

Amazon Leadership Principles

Customer Obsession, Ownership, Are Right, A Lot, Learn and Be Curious, Hire and Develop the Best, Insist on the Highest Standards, Think Big, Bias for Action, Frugality, Earn Trust, Dive Deep, Have Backbone; Disagree and Commit, Deliver Results, Strive to be Earth's Best Employer, Success and Scale Bring Broad Responsibility.

To share few of my experiences with few of leadership principles:

Invent and Simplify—There is great importance placed at Amazon for continuous improvement, Amazon has integrated Six Sigma methodology and each employee is required to strive to continuously improve the processes they are involved in and accountable for the project they are driving. This helps the organization to always question the status quo and continuously strive to get better.

Hire and Develop the Best—Amazon is a place where there is a rigorous structured process of interview and selection of candidates. So it is very well known that it is not an easy thing to get hired at Amazon, so much is the importance given for hiring the best candidate. This makes the competition more fierce within the organization as you are working with the best team members.

Customer Obsession—Each of employee at Amazon strives to ensure customer delight, and they can go to any extent to ensure customer satisfaction. Customer is placed at the heart of the processes.

ADP Mission, Vision, Values

Automatic Data Processing, Inc. (ADP) is an American provider of human resources management software and services, headquartered in Roseland, New Jersey.

ADP's One-of-a-Kind Culture and Values

Insightful expertise, Service excellence, Inspiring innovation, Each person counts, Results-driven, Social responsibility.

6. **Financial Modelling and Unit Economics**

   Many a times start-up fail due to less or no focus on the financial planning. The successful companies have their numbers in place from the beginning, hence the focus on financial modelling and unit economics is very important.

   6.1 **Financial Modelling**

   Financial modelling is the process of creating a numerical representation of a financial situation, using mathematical and statistical tools, to forecast future financial performance. The models use inputs such as historical financial data, economic indicators, and industry trends to simulate financial scenarios and make predictions. Financial modelling is commonly used in corporate finance, investment banking, and financial planning and analysis. It helps companies make informed decisions by providing a visual representation of how changes in key assumptions will affect a company's financial performance. Some common applications of financial modelling include budgeting, valuation, risk analysis, capital planning, and mergers and acquisitions.

6.2 Unit Economics

Unit economics refers to the financial performance of a single unit or product, usually expressed in terms of revenue and cost. The aim of unit economics is to measure the financial viability of each unit of a product or service, and to understand the underlying drivers of profitability on a per-unit basis. This analysis helps a business determine the cost structure of producing and selling a unit of its product or service, and identify areas for improvement that can increase its margins. Ultimately, unit economics is a key factor in determining the overall financial health and sustainability of a business.

Unit economics is a tool to evaluate the business's profitability per unit. Unit can be customer, employee, transaction, output, etc., If you take example of a taxi company, the unit can be number of rides, driver, kilometre.

For a start-up unit economics is important. Following are the metrics you can analyse

(a) How much money you spend to acquire a client
(b) How many units you need to sell to make a business profitable
(c) How successful your marketing campaigns, and which marketing campaign you have to choose
(d) What is the growth potential of a business

Unit economics helps investors to make key decisions of whether to invest or not in a business.

For example, if we need to measure a Life Time Value of a Customer following is the formulae

LTV = (ARPU—CAC—COGS) * B
LTV = Lifetime value of a Customer
ARPU = Average Revenue per unit
CAC = Customer Acquisition Cost
COGS = Cost of Goods Sold
B = # of Units bought by the customer

Three Reasons Unit Economics Is Important

The outcome of unit economics analysis will be useful for the company in the short term and in the long run from the financial planning perspective.

1. Unit Economics helps in financial planning, forecasting and budgeting.
2. Unit Economics helps in the pricing decisions to ensure optimal utilisation of resources and helps in production planning and achieving maximise profits.
3. Unit Economics helps in assessing the future potential of the product and ensure business process reengineering of the product, technology and also focus on right business development to ensure sustainability of the business.

6 Modified Scorecard Method: Implementation Example (Table 5)

By implementing the modified scorecard for the example, we can see the results as below (Table 6)

Considering $ 1.5 million as the industry average Start-up valuation based on the trends (considered the same average as the scorecard method to be able to compare the scores using scorecard method and modified scorecard method). Considering the above example the valuation of a setup is $1.5 million into 0.75 which amounts to $ 1.125 million, for details of computation please refer to Appendix 2.

Table 5 Modified scorecard criteria

Criteria	Weights[a] (%)
Power of an Idea (Uniqueness, Technology enabled)	20
Strength of the founding team	15
Size of the Opportunity (Total Addressable Market)	15
Competitive advantage—Business Model defined	20
Strategy Execution and Governance mechanisms	10
Organisation culture	10
Financial Modelling and Unit Economics	10

Source: Author's Own Creation
[a]Weights can be modified based on the user requirements

Table 6 Adjusted criteria for modified scorecard

Criteria	Weights[a] (%)	Comparison (%)	Adjusted weighting
Power of an Idea (Uniqueness, technology enabled)	20	115	0.23
Strength of the founding team	15	84	0.13
Size of the opportunity (Total addressable market)	15	61	0.21
Competitive advantage—Business model defined	20	85	0.18
Strategy execution and governance mechanisms	10	53	0.05
Organisation culture	10	30	0.01
Financial modelling and unit economics	10	56	0.06
Total			0.75

Source: Author's own creation
[a]Weights can be modified based on the user requirements

7 Conclusion

The crux of this article on Scorecard Method of Business Valuation is for the professional valuer or appraiser to look at the valuation as not just a calculation activity, approach it holistically and look at the overall business model, idea, technology, organization culture, governance, unit economics, financial modelling, etc.

And most importantly as this method is used only in the absence of the quantitative data required for other methods such as DCF, Comparable transaction method and other methods, it is always better to calibrate the overall assessment again using DCF method and Comparable transaction method, and other Income and Market methods.

Also the reference to be made to the comparable companies on all parameters prescribed in the modified scorecard valuation method. Most of the times businesses fail due to poor governance, poor execution, lack of focus on financial planning and analysis and employee engagement and also due to lack of focus on the adopting to latest technologies.

One important caveat is that there are few criteria considered such as governance mechanisms and organisation culture, which one may argue is not applicable for a start-up since it is new and these things are work in progress. However, we need to understand that many organizations have failed due to these few issues as per the research which is outlined earlier in this article. So it may not be very easy to track these scores since the company is in the process of developing the people and process strategic aspects, however if we can examine and ask right questions to the founders we will be able to understand their plans with respect to people, process and compliance and the amount of importance the founders are laying getting these aspects in place. The founders who are concerned about building the sustainable business, will surely envisage the issues and build necessary control mechanisms in place. Great leaders who have made their company big and sustain for longer term have had their vision very clear and continuously developed it to adopt to the changing times.

Appendix 1: Scorecard Methodology Implemented with a Scoring Example for a Target Company—Healthcare Technology cum Fintech Company

The scoring model is shared below which will explain the various criteria considered for arriving at the above scores under each category.

The below scoring model is only an indicative example however the investor and the appraiser need to use their discretion to make necessary changes as per the requirement.

Explaining the Scoring Model

In the below scoring model which is depicted in Appendix 1, you can see that there is + and – sign used for scoring methodology. + (plus sign) sign means it is an adding to the strength of the valuation and – (minus sign) sign means it is working negatively for the target company and it will bring down the weightage of the scoring and bring down the valuation. This is the method used to provide points for every qualitative factor of the organization which adds into the company as an advantage or disadvantage in turn contributing to the valuation.

In the below scoring model depicted in Appendix 1, the author has used the target company example, the background of the target company explained below.

Brief Background of the Target Company The target company is into health tech/fintech business from India. It is a unique combination of this company which is both into lending in healthcare space and it is mainly technology enabled. In order to protect the confidentiality of the company and its uniqueness of the idea, I am refraining to disclose more details about the idea and the product. And important aspect is the idea is completely unique and there is no directly comparable company, however I have taken combination of few companies to arrive at comparable company scoring.

Target Company Information Below is the target company information and performance on each parameters of scorecard, which is aid you to relate on how the scoring is assigned.

Strength of the Product and Intellectual Property The company's product is totally unique as I have mentioned earlier and it has acquired IP rights for this product and it is a technology-enabled product which is using API/App based/ Machine Learning. This product is already live and has completed one year in the market so it has acquired the users and already making revenue.

Competitive Environment As I have detailed earlier this product is totally unique and there is no competitive product in this space however there are competitors in this space who are fintech players but their focus is not only healthcare industry, they are a generic fintech companies. So this company is into fintech space in the healthcare sector which is the uniqueness of the idea.

Marketing/Sales/Partners The target company has begun its operations and already acquired customers. However, only drawback is that when compared to other competitors who have captured market to a larger extent and have their customer acquisition strategy very clear, this target company is not too clear on the customer acquisition strategy.

Need for Additional Rounds of Funding The target company has completed 1 year of operations and has bootstrapped its operations and to take the operations to next stage and to achieve the set out target of growth, is looking for the additional funding, which is actually normal and will facilitate its growth.

Appendix 1 : Scoring Sheet

Scoring methodology - Working example (Target company in health/Fintech industry)					
		Scoring			
Scoring model		Target company scoring	Comparison company scoring	Target company scoring %	Comparison company scoring %
Strength of the Founding Team overall score				**81**	**100**
Impact	**Experience**				
+	Many years of business experience	+	+	100	100
++	Experience in this business sector	++	++	100	100
+++	Experience as a CEO	+++	+++	100	100
++	Experience as a COO, CFO, CTO	++	++	100	100
+	Experience as a product manager	+	+	100	100
+	Experience in sales or technology	–	+	0	100
–	No business experience				
Impact	**Willing to step aside, if necessary, for an experi-enced CEO**				
–	Unwilling				
0	Neutral				
+++	Willing	++	+++	75	100
Impact	**Is the founder coachable?**				
+++	Yes	++	+++	75	100
–	No				
Impact	**How complete is the man-agement team?**				
–	Entrepreneur only				
0	One competent player in place				
+	Team identified and on the side-lines	+		75	
+++	Competent team in place		+++		100
0–25% Size of the opportunity				**85**	**100**
Impact	**Size of the target market (total sales)**				
–	< $50 million				
+	$100 million	$90 million		75	
++	> $100 million		$120 million		100

(continued)

Scoring methodology - Working example (Target company in health/Fintech industry)					
		Scoring			
Scoring model		Target company scoring	Comparison company scoring	Target company scoring %	Comparison company scoring %
Impact	**Potential for revenues of target company in 5 years**				
–	<$20 million				
++	$20 to $50 million	$45 million		60	
+++	>$100 million (will require significant additional funding)		$75 million		100

Source: The article Scorecard Valuation Methodology Establishing the Valuation of Pre-revenue, Start-up Companies by Bill Payne (https://seedspot.org/wp-content/uploads/2021/02/Scorecard-Valuation-Methodology.pdf), relevant modifications done by the author to the scoring

Scoring Methodology - Working example (Target Company in Health/Fintech industry)					
		Scoring			
Scoring Model		Target Company scoring	Comparison Company scoring	Target Company scoring %	Comparison Company scoring %
0–15% Strength of the Product and Intellectual Property				**93**	**100**
Impact	**Is the product defined and developed?**				
–	Not well define, still looking a prototypes				
0	Well defined, prototype looks interesting				
++	Good feedback from potential customers	++		90	
+++	Orders or early sales from customers		+++		100
Impact	**Is the product compelling to customers?**				
–	This product is a vitamin pill				
++	This product is a pain killer				
+++	This product is a pain killer with no side effects	+++	+++	100	100

(continued)

Scoring Methodology - Working example (Target Company in Health/Fintech industry)					
		Scoring			
Scoring Model		Target Company scoring	Comparison Company scoring	Target Company scoring %	Comparison Company scoring %
Impact	**Can this product be duplicated by the others?**				
–	Easily copied, no intellectual property				
0	Duplication difficult				
++	Product unique and protected by trade secrets	++		90	
+++	Solid patent protections		+++		100
0–10% Competitive Environment				**100**	**100**
Impact	**Strength of competitors in this marketplace**				
–	Dominated by a single large player				
–	Dominated by several players				
++	Fractured, many small players	++	++	100	100
Impact	**Strength of competitive products**				
–	Competitive products are excellent				
+++	Competitive products are weak	+++	+++	100	100
0–10% Marketing/Sales/Partners				**88**	**100**
Impact	**Sales channels, sales and marketing partners**				
–	Haven't even discussed sales channels				
++	Key beta testers identified and contacted	++		75	
+++	Channels secure, customers placed trial orders		+++		100
–	No partners identified				
++	Key partners in place	++	++	100	100

(continued)

Scoring Methodology - Working example (Target Company in Health/Fintech industry)					
		Scoring			
Scoring Model		Target Company scoring	Comparison Company scoring	Target Company scoring %	Comparison Company scoring %
0–5% Need for additional rounds of funding				**50**	**100**
+++	None		+++		100
+	Another angel round	+		50	
–	Need venture capital				
0–5% Other				**50**	**100**
++	Positive other factors	+	++	50	100

Source: The article Scorecard Valuation Methodology Establishing the Valuation of Pre-revenue, Start-up Companies by Bill Payne (https://seedspot.org/wp-content/uploads/2021/02/Scorecard-Valuation-Methodology.pdf), relevant modifications done by the author to the scoring

Disadvantages of the Scorecard Method

One of the main disadvantages of the Scorecard Method is that it is more of a subjective method, and less of quantitative method. Due to unavailability of the historic track record of the company and also start-up being its early stages of life cycle (pre-seed, seed stage) mostly it is a nonrevenue generating company or minimum revenue generating company. The valuation arrived from the scorecard method might fail if the founders do not execute their plans successfully. Hence this method of valuation has to be applied cautiously, should be calibrated with other valuation methods like DCF method and Market method as much as possible. To arrest these disadvantages of the bad execution and few of the important factors which are not addressed in this scorecard method has been covered well in the Modified Scorecard Method (developed by author) which is being discussed in detail in the upcoming sections. However it is required to be noted that even the Modified Scorecard Method is not completely fool proof, calibrating the methods with other valuations methods and frequently carrying out the valuation at periodic intervals to assess the company's progress is important.

Why Start-Ups Fail

Before we go into the Modified Scorecard Method, I have done some research on why Start-ups fail, let us first review the same.

From the research done by CB Insights, of 111 start-ups failure stories from 2018 to 2022, it is learned that there is not one reason for start-up failure. It is broken down into 12 major reasons, which are depicted below.

The effort is made to address many of these issues in the Modified Scorecard Method developed by the author (Fig. 5).

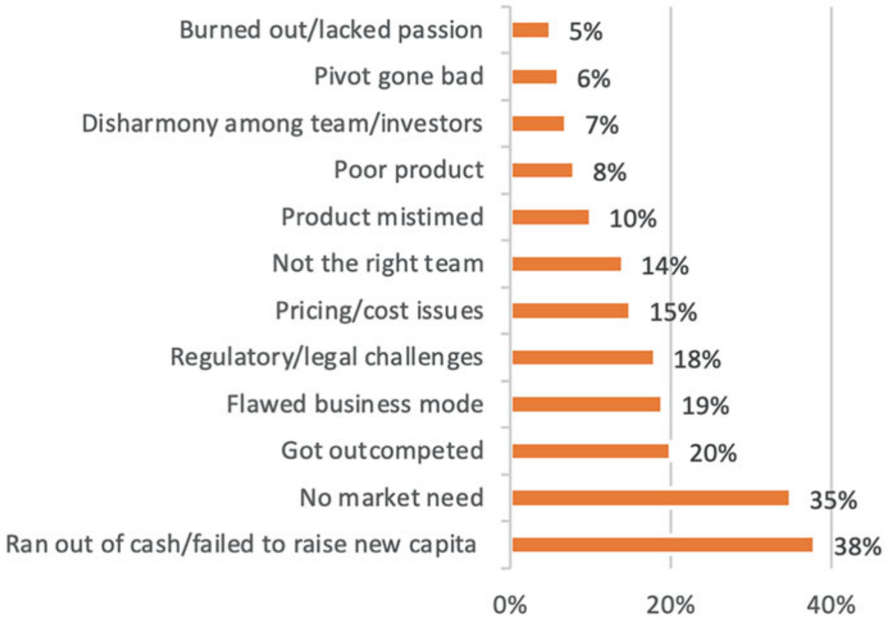

Fig. 5 Top reasons why start-ups fail. Source: CB Insights research

Appendix 2: Modified Scorecard—Illustrative Example

The scoring model is shared below which will explain the various criteria considered for arriving at the above scores under each category. The below scoring model is only an indicative example however the investor and the appraiser need to use their discretion to make necessary changes as per the requirement. The same target company which is into healthcare technology/fintech industry from India has been considered for computing the valuation using the modified scorecard method. For detailed characteristics of the target company do refer to the previous section where the valuation is performed using the scorecard method.

Below is the rationale explained for providing the scores as per the scoring sheet.

Power of an Idea (Uniqueness, Technology Enabled) The target company idea is totally unique and it is technology enabled and also utilising the API technology and Mobile App-based solution. It is already operational for more than an year and started generating the revenues. It is unique idea because there are only couple of competitors worldwide with the similar in the field of healthcare sector. In order to protect the confidentiality of the company and its uniqueness of the idea, I am refraining to disclose more details about the idea and the product.

Strength of the Founding Team The founding team has technology expert, operations expert and a strategic expert with industry influence. However there is high dependency on the founding team and the succession planning is not in place since the company is fairly new. Hence the scoring is accordingly impacted.

Size of the Opportunity (Total Addressable Market) The current focus of this product is within India, however this product can be scaled to implement in other countries as well which is not yet planned. There is scope for improvement in the customer acquisition strategy, as of now there is lack of clarity in this area hence the scoring is accordingly impacted.

Competitive Advantage: Business Model Defined The target company business model pretty clear and there is no diversion in the business model. The business focused in the healthcare sector and it is gaining the competitive advantage by identifying its customer very clearly and also the target market is identified very clearly. Overall scoring on this front is fairly good.

Strategy Execution and Governance Mechanisms Intellectual Property is registered. No clear strategy related to execution of strategy defined. No plans on implementing any operations or technology framework. Mission, Vision and Values are defined however not being reflected in the daily operations since the policy framework related to the various functions (Operations, HR, Finance, Compliance) is work in progress.

Organisation Culture The organization policies are under development and the organization culture is not yet established.

Financial Modelling and Unit Economics Financial Model is defined, as the company has already in operations for one year and has started generating revenues, and do have the prospective financial information, however the supporting required for the financial model can be improved, for example the investment in technology, marketing and capital expenditure is not fully in line with the revenue growth. The clarity in terms of forthcoming technology enhancements, version releases and associated costs are not estimated.

Unit economics is defined, the costs related to customer acquisition, and customer retention is available. The clarity with respect to fixed cost, variable cost is also available. However further refinement has to be done on the overall Management Accounting and Unit Economics so that the decision support system and Management information systems can be made further accurate and sophisticated. The opportunity to implement ERP systems and should be planned.

Appendix 2 : Coring sheet (Target company in health/Fintech industry)

Modified scorecard—Scoring methodology		Scoring		
Scoring	Category	Target company scoring	Comparison company scoring	% scoring
Power of an Idea (Uniqueness, Technology enabled)		15	13	**115**
0–5	Completely new product/solution	5	4	
0–5	Latest Technology enabled (Example—AI, ML, API, AWS, Block Chain, etc.)	5	4	
0–5	Unique solution/product	5	5	
0–3	Copied product/solution			
Strength of the founding team (marks added to each founder for each quality)		**26**	**31**	**84**
0–5	Technology	4	5	
0–5	Operations Excellence	4	4	
0–5	Proven track record/Experience	4	4	
0–5	Powerful network/Public figure	3	4	
0–5	Full time	5	5	
0–3	Part time	0	0	
0–3	Team identified and on the side-lines	0	0	
0–5	Team ready	4	5	
0–5	Succession planning in place	2	4	
Size of the Opportunity (Total Addressable Market)		**11**	**18**	**61**
0–5	Target Addressable Model clearly identified with appropriate research	4	5	
0–5	Market penetration strategy clearly defined	3	5	
0–5	Next five-year revenue opportunity relative to the competitor	2	4	
0–5	Already market penetration/revenue achievement on track	2	4	
Competitive advantage—Business Model defined		**11**	**13**	**85**
0–5	Cost Model	4	4	
0–5	Differentiation model	4	5	
0–5	Focus model	3	4	
Strategy Execution and Governance mechanisms		**9**	**17**	**53**
0–5	Intellectual Property registered	5	5	
0–5	Capability framework CMM, ISO, Agile, Six Sigma, Lean	0	3	
0–5	Execution capability Strategy clearly defined	2	3	
0–5	Mission, Vision and Values defined	1	3	
0–5	Policies of all functions defined (HR, Finance, Operations, Marketing, etc.)	1	3	
Organisation culture		**7**	**23**	**30**
0–5	Organisation culture aspects (Purpose, Caring, Order, Safety, Authority, Results, Enjoyment, Learning)	2	4	

(continued)

Modified scorecard—Scoring methodology		Scoring		
Scoring	Category	Target company scoring	Comparison company scoring	% scoring
0–5	Compensation and Rewards strategy defined	1	4	
0–5	Learning and Development framework	1	4	
0–5	Employee Engagement strategy	1	4	
0–5	Leadership principles	1	3	
0–5	Performance Management	1	4	
Financial Modelling and Unit Economics		**9**	**16**	**56**
0–5	Financial Modelling defined	3	4	
0–5	Unit Economics defined and implemented	3	4	
0–5	Financial Planning and Analysis and reporting	1	4	
0–5	Statutory Compliance framework/Status tracking mechanisms	2	4	

Source: Author's own creation

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