Startup Valuations in Emerging Markets

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What important truth do very few people agree with you on?--Peter Thiel

I very frequently get the question: "What's going to change in the next 10 years?" And that is a very interesting question; it's a very common one. I almost never get the question: "What's not going to change in the next 10 years?" And I submit to you that that second question is actually the more important of the two -- because you can build a business strategy around the things that are stable in time.—Jeff Bezos

ABSTRACT

This chapter focuses on unique challenges in startup valuations in the emerging markets, and approaches to address them. Each emerging market has distinct characteristics than another and the developed ones, including but are not limited to macro factors such as inflation, currency fluctuations, or political instability and company specific factors caused by a startup's unpredictable nature and its interaction with the market and the third parties.

Startup valuation is subjective to some extent, and there is a certain need for a reliable framework to facilitate investment decisions. The author curates 10 startup valuation methods and proposes modifications and adjustments to them, trying to combine them in a startup-specific but practical method in the context of emerging markets.

Additionally, the investor perspective is highly involved in the chapter to give a solid understanding that the valuation practice is a tool to assess an investment and to build an investment decision; it is not an aim itself. And the emerging market startups can provide fruitful investment opportunities for risk-takers.

Important components of the valuation process such as due diligence, performance metrics, qualitative factors, portfolio strategies, exit strategies and the regulatory scene are also elaborated.

Keywords: Acquisition, Deal, Dry-Powder, Due Diligence, EBITDA, Enterprise Value(EV), Exit, Fintech, Funding, Investor, IPO, NPV, Private Equity, ROI, Scalability, Venture Capital

INTRODUCTION

Both startup valuation and valuation techniques in emerging markets bear unique challenges and issues to be considered. The intersection of these two may be though for analysts and investors. This chapter compares pros and cons while handling these specific issues, offers methods, and gives "clues" for "surfing the tides of unknown waters." Investor perspective is highly emphasized.

In the early sections, the emerging market definition and the characteristics will be given from a startup's perspective and consider the effects over valuation practice.

Following this, both the challenges and potential rewards will be evaluated given the context of venture capital and private equity. The determinants of the valuation will be assessed as a chain reaction.

10 startup valuation techniques will be listed and explained with use cases then. For each technique, specific adjustments required for an emerging market from the point of an investor/an analyst will be revealed.

The quantitative factors and performance metrics affecting valuations, as well as the qualitative factors such as scalability issues and emerging technologies will be explored in the proceeding sections.

As a case study, a hypothetical startup of an emerging market will be valued with the techniques and approaches provided, in order to help the reader understand valuation studies in real world.

After the effects of regulatory scene, policies and government incentives discussed, the due diligence efforts which accompany the valuation and are an important part of investment process will be addressed as a solution to information asymmetry problems.

The investor's toolbox consists of portfolio and risk management strategies and exit routes for realization of investment will conclude the chapter, after revealing the effects of behavioral economics and psychology over the valuation negotiations.

The separate elaboration of the components of the startup valuation within this specific context will come up with a solid framework at the end, which an analyst will be able to value a startup in an emerging market.

1 Being a Startup in an Emerging Market

Ries (2011) defines a startup as "a human institution designed to create a new product or service under conditions of extreme uncertainty" (p. 8), whereas according to Blank and Dorf (2012), "a startup is not a smaller version of a large company. A startup is a temporary organization in search of a scalable, repeatable, profitable business model" (p. xvii). Words such as "extreme uncertainty" and "temporary" in these broadly accepted definitions connotate volatility and instability: Welcome to emerging markets!

Although there is no consensus about which countries and how they are considered emerging markets, most classifications depend on macroeconomic indicators. Arguably, if we would talk about emerging markets in terms of startups, we would use additional and/or alternative criteria to indicate an emerging market. Those come into place then:

Total funded amount: Oftentimes venture capital funding is counted, private
equity funding and M&A transactions involving traditional businesses are
excluded.

- Average and median deal size: Both the average and median funding raised for a single company tends to be smaller in emerging markets.
- **Presence of top quartile investors:** These investors occasionally show up in emerging market deals but increase appetite for that market when they do.
- **Deal shares among investor categories:** Angel investors and venture capitalists have a higher share of total funding in emerging markets than the other surefooted investors such as pension funds or fund of funds.
- The number of mega-rounds: More than 100M USD is raised in a mega-round, and the abundance of mega-funding rounds may reflect the maturity of that market. The share of mega-rounds among total funding also counts.
- Number of unicorns and decacorns: When a funded startup hits a valuation of 1B USD it becomes a unicorn, and a decacorn beyond a 10B valuation. An emerging market tends to produce at least a few of them, while tens of them are alive in top markets.

Different measures and ratios can be calculated with this type of data as well. Combinations with macroeconomic indicators are also commonly used. "Vertical-based" (venture terminology prefers this term instead of the term "industry") calculations are also popular. It is all about the scope of an analysis. However, investors used to consider the above most of the time.

An analyst who wants to add some math into the classification of the markets as developed or emerging can use Damodaran (2025) calculations of country-based equity risk premiums. They would also work well if used in portfolio management calculations. However, the analyst should keep in mind that the financial models employed in portfolio calculations have drawbacks even in reflecting the performance of portfolios consisting of relatively easily valued assets. Startup valuation brings much more deviation and variance to those models, practically violating *all* assumptions made for the reliability of them.

2 Macroeconomic Impacts

Mostly, startups are more fragile to the macroeconomic tides than their conventional counterparts. To name a few of the reasons, the first is their life cycle and life span. Oftentimes, their contingency budget is very tight (if present). Cash flow is widely used for fast growth. Additionally, investor and competitor pressure combined with the ambition of the management team, drive the startup with a fabulous risk appetite. Risk is not managed strictly like the conventional companies usually do but widely tolerated and accepted. Inner risk control mechanisms are not powerful as they have to be. In addition, product-market fit may not be as strong as the deep-seated competitors. This list can be further extended.

Emerging market economies, on the other hand, exert other macro forces on these already fragile organizations.

• Inflation and interest rates of the market: It is a fact that inflation affects employment, income distribution, and the growth rates of an economy. An emerging economy faces some other side effects too, in a rather chaotic way.

Pricing behavior shifts, usually gets worse with a sticky fashion. Not only (because) costs rise, prices rocket. Decreasing purchasing power force people to **spend more**, **not to save more** as it is in a top economy. They think that they will not be able to buy the same thing next month; it is now or never!

Exaggerated consumption and rocketing prices may lead to an artificial balloon in valuations due to record-high sales figures. Or the business can pass away because of the same turbulence.

The investor side is the opposite. High interest rates executed to control the inflation make the opportunity cost of venture investments extremely high. With the accompanying market risk and volatility, investors have a high tendency to park their capital in safe and liquid investments such as government bonds or high-interest paying cash accounts, even in other less-volatile economies: anywhere other than ventures. Decreased demand for startup investments causes deep drops in valuations.

Inflation and interest rates work together with currency fluctuations in the following way as well:

• Currency fluctuations: Other than the internal economic and political dynamics of those markets, inflation and in turn interest rates of the USA, and the top economies cause fluctuations in the local currencies of emerging markets.

Currency fluctuation affects a startup's valuation in two major ways. The former is that it affects the calculations of valuations by changing the parameters in the methods used. Both the cash flows expressed in USD unit while converting from local currency, and the discount rates used are changed. Then the Net Present Value (NPV) and Internal Rate of Return (IRR) change as well.

The latter is the shift in the core business of the startup in consideration. For example, having a cost structure in local currency and a revenue stream in USD, or vice versa, will have a parallel fluctuation in its financial structure with the fluctuation of the currencies; a direct driver of a change in valuation.

• Political Risk: Emerging markets generally have the similar "volatility" in their political scene as well. Arguably, volatility in the macroeconomic indicators and dynamics is a direct result of the political volatility, since governmental changes, more frequent elections, and more major periodical shifts in economic policies contribute most of the turbulence. However, we need to keep in mind that the turbulent markets and the large margins on both sides (the positive leaps can be as large as the negative ones) in every industry also provide the biggest opportunities for the ones that know how to surf these tides.

3 Startup Valuation Challenges and Rewards in the Emerging Market Scene

The instable characteristics of the markets in emerging markets create an extra burden on valuation practices of the startups. On the common ground, valuation practice can be accepted as a mixture of data, predictions, and expectations. That being said, those components bring unique challenges:

- Reliable data is scarce. Actors of the market usually are not obliged to, do not have access to, or are not able to keep *knowledge*-based records. Instead, *information* is available sometimes, but superficial. Although vastly abundant, regulations do not help much since they are based on tax purposes and are focused on avoiding fraudulent actions. Making precise decisions on a financial basis is not a priority.
- Predictions may be only "guesses" or "possibilities" often, which they actually shouldn't be. It is hard to find reliable evidence as input, or solid comparable.
- Expectations are involved more than they should be, compared to developed markets. In the lack of adequate data and strong evidence-based predictions, those expectations become the major driver for the valuation study. This is not idiosyncratic for the emerging markets. These kinds of biases are also common for startup valuation scenes around the Globe. The problem in the emerging market is that the mood shaping expectations can be drastically volatile in noticeably short periods.

It can be easily said that the first valuation set for a startup in an emerging market, which would be the ground for future valuations for that startup, is the one that is agreed on by the very first investor(s) and the founder(s). And this makes it a decision of behavioral finance, not of a financially rational one.

On the other hand, considering the basic risk-reward structure of financial decision making, emerging markets may be rewarding:

- Substantial risk perception justifies high return expectations of investors and welcomed.
- Actual risk level usually avoids the biggest investors such as pension and hedge
 funds of developed markets to take large positions in the emerging markets,
 hence their mandates do not allow them to invest above a particular risk level.
 Reduced competition among investors combined with the information
 asymmetry may offer opportunities.
- On the startup side, from an evolutionary point of view, tough times create resilient companies and battle-tested leaders who survive among the ordinary ones. This may be the major ingredient of a unicorn recipe.

An investor who can manage risk well and has the related knowledge would receive high returns. Just keep in mind that some "adjustments" for valuations should be made, which will be considered in the following sections of this book chapter.

4 How do Venture Capital and Private Equity Shape Valuations?

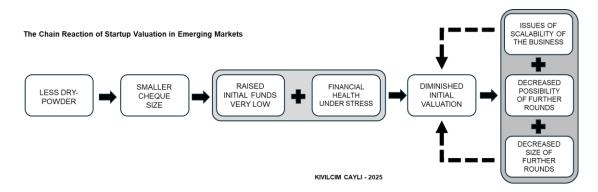
From company structures to regulations, from financial modeling to valuation techniques, investors affect the markets in many ways. Going even further, we can claim that beginning with angel investment at first, venture capitalists (VCs) and private equity capital (PE) shape not only the valuations, but the standards as well, within the startup space. Regarding the basic supply-demand correlation, this is not surprising. Emerging markets are no exceptions.

One of the characteristics of the startup scene in an emerging market is the scarcity of funds despite the vast number of startups seeking to raise investor money. Dry-powder is limited due to the reasons mentioned above. Hence, VCs and PE are able to set the rules.

Not only are universal industry standards in action, but the different strategies adjusted to local realities show up in this unique gamebook.

Smaller dry-powder leads to smaller cheque sizes, and in turn, issues of scalability. Startups usually do not gain the necessary financial muscles. Although the exceptions to return of investments are high, the budgets are tight, and the runways are short. This is one of the pressure elements over valuations. Startups cannot scale easily in emerging markets.

Also, do you recall that the first valuation set between the initial investors and the founders is an agreed one? The first valuation would be smaller compared to the valuations of developed markets, and consequently immaturity is born in a chain reaction:



Another direct consequence is the increase in the number of pre-seed, seed, and early-stage investments whereas an opposite decrease in the number of Series A+ investments and the mega rounds. As a familiar pattern, the ratio of venture capital invested to private equity deals increases. Additionally, please note that, total amount of private equity deals decreases in size as well.

More risk-tolerant investors would seize the opportunities here. Those are.

- Smaller initial valuations may offer "cheaper" deals.
- Valuation multiple kept constant, smaller initial valuations ease to reach that multiple. For example, it is tough to multiply a 500M USD valuation by 5 than to multiply a 100M USD valuation by 5. This makes sense for the fund or portfolio performance calculations and LP mandates.
- Easier-to-reach valuation multiple may allow an earlier exit and investment return realization.
- Because of the smaller enterprise valuations (EV), IPOs may not be the proper or the
 accessible option for an exit for most of the startups. Thus, many emerging markets offer
 various alternative exit routes such as specialized exchanges with less financial criteria,
 eased IPO processes for tech startups, and crowdfunding platforms.

Oftentimes different financial modeling, structuring, valuation techniques, and multipliers are also employed by investors. Valuation techniques are the subject of the next section.

5 Startup Valuation Techniques in Emerging Markets

Basically, we can list the top 10 valuation techniques for startup valuations as follows:

METHOD	DEFINITION	HOW?	PROS	CONS	FOR WHOM?
Discounted Cash Flow (DCF)	The widely used technique in corporate finance & investment banking	Calculating the present value of the future cash flows that will be generated by the start-up over a specific period with a discount rate.	Solid, well- understood and most-trusted method	It depends on predictions, not actual.Some founders may find it hard-to-use	Works best for revenue- generating startups
Balanced Scorecard	The widely used technique by Angel Investors	Several significant factors are determined and assigned weights. Then, the factors are scored.	 Allows scoring & weighting intangible factors. Allows comparing startups 	Scoring and weighing are subjective	Works best for Angel Investors for deal selection
Venture Capitalist (VC)	The widely used technique by Venture Capitalists, first introduced by Bill Sahlman of Harvard B.S.	An exit multiple and timing are determined. Then, the exit value is discounted to NPV considering the desired ROI, and the valuation is set accordingly.	 Fits well to early-stage high growth startups. Incorporates return and well-shaped exit 	 Totally investor driven and speculative process. Industries with lower multiples may suffer 	Works best for VCs having ROI & timing mandates
Risk Factor Summation	First introduced by Ohio TechAngels, one of the most used methods by Angel Investors	A comparable valuation is set as a base value. Then this value is adjusted against 12 basic risk factors to determine the valuation of the focused startup.	Simple to use, considers risk	 Doesn't consider positives & growth potential. Doesn't distinguish btw risks & probabilities 	Works best for early-stage startups
Market Comparables	Not commonly used for private companies, more suitable for public companies	The transaction valuations for similar startups are determined. Then the average, or weighted average, often adjusted with a specific multiple is used.	Easy to use, doesn't require confidential data	 Comparables are hard-to-find for startups. Company specific factors aren't considered 	Works best with other methods as a benchmark
First Chicago	Can be counted as a modified or upgraded version of DCF valuation	The present value of the future cash flows that will be generated by the startup are adjusted against risk via bad, good, and base scenarios.	Allows multiple transaction scenarios	Somewhat subjective Company specific factors aren't considered	Works best for revenue- generating startups
Multiples Valuation	Not commonly used for private companies, more suitable for public companies	Similar to the market comparables method. Not the transaction value, but a specific metric is preferred this time.	Easy to use. Considers industry specific metrics	Future expectations & potential disregarded Intangible & intrinsic factors aren't considered	Startups outperforming rivals in a specific metric
Replacement Costs	An asset-based valuation method, which is not commonly used because of some drawbacks	The present values of all the startup's assets are calculated and summed as if they are being purchased again.	Easy to use	 Intangible assets and goodwill are disregarded. Unreliable results compared to other methods. Inconvenient for high-tech industries 	Asset-intense startups with a large balance sheet
All-Costs- Focused	A costs & expenses- based valuation method, which is rarely used because of some drawbacks	A predetermined valuation and share ratio enough to cover all costs & expenses until the next round. Usually, a goodwill portion is added.	Easy to calculate	Performance & investor expectations excluded. Totally subjective & only founder's perspective Doesn't reflect fair or real value	Best for founders having successful exits in the past
Berkus	The widely used technique by Angel Investors, first introduced by Dave Berkus	Up to 500 K \$ is added to the valuation for the presence of each of the 5 significant factors in the startup. The cap is 2.5 M \$.	Remarkably simple to use. Quick stop-or-go decision	Totally subjective Ignores financial metrics, overall performance	Works best for seed stage startups without traction

It would not a surprise that, above methods would produce different results even on the same deal. Because they all focus on the different features and parameters of the startup, most of them being substantially subjective on both sides. Meaning, both the valuation parameters and the startup's own "data" are obscure. An emerging market's own dynamics obviously will not help much either.

So, what can be done to achieve a reasonable, if not dependable, valuation? It is convenient to use all applicable methods simultaneously for a deal, and to set a valuation interval, rather than setting an absolute value using a single method. A weighed mixture would be helpful.

6 Valuation Adjustments for Emerging Market Startups

It is vital to make adjustments specific to emerging markets carefully and add into formulae. Then, the analyst will be able to converge on a more accurate valuation. The following are the essential adjustments for an emerging market depending on the valuation method chosen.

METHOD	EMERGING MARKET ADJUSTMENTS		
Discounted Cash	• Increase the discount rate instead of using the standard 8% annually. Market's actual interest		
Flow (DCF)	rate, inflation rate, risk free rate, bond interest rate can be employed.		
	• Startup's cash flow predictions may need some tuning as well. But avoid double discounting by		
	using the same indicator.		
Balanced	Adjustments depend on the parameters chosen initially. For instance, if the addressable market		
Scorecard	size is a parameter, it may be adjusted by using market-specific purchasing power, extra		
	distribution costs due to the inadequate logistic infrastructure, and so on.		
Venture Capitalist	DCF adjustments should be made. Additionally, the expected ROI should be <i>decreased</i> compared		
(VC)	to a developed market. It seems contradictory with the risk-reward paradigm of emerging markets,		
	but it is not. VCs often predict lower ROIs for a startup of an emerging market which is in exactly		
	the same industry and in exactly the same stage and condition for a startup of a developed market.		
	No written rules for that, but it is related to the perceived survival probability of the startup and		
D' LE	the attractivity of the market. If possible to find, a similar industry's adjustment ratio may work.		
Risk Factor	Since the parameters chosen are all risk-dependent, all should be adjusted with the same approach		
Summation	mentioned in the balanced scorecard method.		
Market	Given the scarcity and quality of reliable data belonging to comparables, plenty of related data		
Comparables	from open sources may be derived. For instance, not only the IPO results which are less in size		
	and in number in emerging markets, closed deal statistics, consultancy company reports, crowdfunding benchmark etc. should be involved.		
First Chicago	DCF adjustments should be made. Additionally, deviation from the base scenario can be enlarged.		
Multiples	The adjustments proposed above for the market comparables, and VC methods are applicable		
Valuation	together.		
Replacement Costs	The inflation rate for tangible assets and interest rate for intangible assets should be considered.		
All-Costs-Focused	The startup founders in the emerging markets are very prone to a kind of survival bias. As a		
	common pattern, cost projections and calculations are precise and perfect, but revenue forecasts		
	are somewhat sloppy and overestimated. It reflects a tendency to equalize the required fund		
	amount to the round's post money share premiums. Thus, cash flow and income projections should		
	be adjusted with business acumen. "Are there really that number of customers? Is it really an		
	accessible market with that amount of distribution costs? Is this price level sustainable for that		
	long given that competition?", and so on.		
Berkus	Since the method itself is highly subjective, any discount for the values of 5 factors would make		
	them more reasonable. A common approach is to apply the same ratio between two compared		
	market's average seed valuations. For example, if the average valuation of the startups at the same		
	stage and in the same industry is double sized in a developed market, the 5 factors of the method		
	can be valued as 250 K \$ rather than 500 K \$ each for the emerging market under consideration.		

7 Quantitative Factors and Performance Metrics in Startup Valuation in an Emerging Market

Classical valuation multiples such as EV/EBITDA, EV/Sales etc. may not work well for the startups of emerging markets. Two major reasons are:

- Startups, as a common pattern, do not have positive EBITDA or Net Earnings figures most of the time, especially in their early years.
- High earnings and sales figures may not reflect the real financial status of the startup because of the inflationist pressures and artificial increases mentioned above.

Hence, to value a startup company in an emerging market, we should conduct a different approach based on real-world performance indicators belonging to that company. For an emerging market investor/analyst, the below metrics may perform well.

VALUATION	DEFINITION	HOW TO APPLY IT?
METRIC		
Runway	It is the number of months that a startup can survive with the cash in hand at the current monthly money burning rate	As a rule of thumb, a funding round provides 12-18 months of runway. So, if a startup needed and raised 2 M \$ to survive for 15 months in exchange for a 5% post-money share, it is roughly valued at 40 M \$.
Annual Recurring Revenue (ARR)	It is the annual revenue coming from the repeating revenue generation cycles such as subscription fees or stock renewing orders. ARR tells more about cash flow than EBITDA, and reflects the startup's business performance much better, even if it is not yet profitable.	Industries and markets have average ARR multiples, and for recent years these are preferred by startup investors for gross deal valuation. For example, a startup can be valued 30 times of its ARR if the average is so for that company stage and industry. Of course, if the figures do not justify this valuation, the possible reasons for the deviation should be carefully considered.
Gross Merchandise Volume (GMV)	It is the total value of the transactions realized on a platform or through a marketplace type business. It reflects the effects of macro trends well in an emerging economy.	It is used as a valuation adjustment factor. The ratio of a current valuation of a competitor to its GMV provides a basis for that market's valuation multiples.

There are tens of other performance metrics that are used in daily practice for measuring a startup's business performance or a fund's/investment portfolio's performance. Obviously, those are beyond the scope of this chapter and excluded.

8 From Emerging Technologies to Local Dynamics : The Importance of Qualitative Factors

Some other intangible factors also take role in the valuation process. They don't necessarily involve in the startup value directly. Additionally, these factors can be counted as subjective.

- Scalability: There is not a straightforward measurement for scalability of a business. However, the VC game solely depends on multiplying the initial valuation during the exit. As a prerequisite for such expansion in value, the structure and growth potential of the business shall be suitable to be expanded.
- Founder team: Almost being a hygiene factor, the founders of the startup are questioned for their ability to scale the business in a brief period of time. Especially the presence of a founder with a previous successful exit may attract more than enough investors, and this hype initiates higher valuations. As a difference in an emerging market, some cultures do not accept every kind of previous experience as an asset and distinguish between success and failure. Previously failed founders may signal in a reverse way, though.
- Local market size and attractivity: Despite the common belief, empirical observations suggest that the addressable size of a market may exert a negative impact if it is very large and satisfying. The startup is well-fed within the local market, and do not need to expand globally to survive and grow, a phenomenon called "hyperlocal." The problem is that dependence on a sole market makes the business highly vulnerable to major catastrophic events which are highly ample in emerging markets.
- Emerging technology landscape: It can work for or against as a valuation multiplier. A fast adoption or invention of an advanced technology outcompetes rivals at an instant whereas they have the same option to disrupt the startup itself. Technological due diligence has to be an essential part of the valuation processes.
- Patents and intellectual property rights: Although projected cash flows from that kind of exclusivity may add a premium to the valuation, some investors consider it as a drawback in some emerging markets. Because it would be very costly to have legal protection in all major markets, and this would create a heavy burden over the early and tight budgets of the emerging startups. The perceived opportunity cost is about the money that would rather go for growth-related activities.

There are other minor factors, which we can unite in the term "incubation factors" more or less affect the valuations in emerging markets, and the effect may be greater than it would be in a developed market. Shortly, those are:

- Paying costs in a cheaper currency while earning in a more valuable one may allow a greater distribution margin.
- The city that the startup operates in counts. The abundance of investors, accelerators, tech employes and universities may provide a competitive edge to scale fast.
- Looser regulations over personal/industrial data and AI usage can enhance the pace of the growth, which will be handled in more detail in the following section.

These factors may also be reflected in the valuation parameters being given weights in a much quantitative way just like in the balanced scorecard method.

9 Case Study: How to Apply in Practice

In this case, the analyst was assigned a valuation study by a VC firm for a seed stage SAAS (Software-As-A-Service) startup recently founded in an emerging market. The firm is planning to invest in the startup and trying to determine the initial valuation of the deal. Due diligence was already conducted. The VC firm requires a 90% accuracy for the valuation.

First of all, the analyst picked relevant methods to use, which are Berkus, VC, DCF, and Market Comparable methods. Here is the rationale of the selection:

METHOD	SELECTION RATIONALE OF THE METHOD	
Berkus	The startup is at the seed stage with very limited performance data	
	available. This method can value some features which would be at	
	zero value otherwise. Also, assigns a reasonable cap for optimistic	
	predictions.	
VC	It adds the perspective and expectations of the VC firm, which is a	
	key determinant of the initial valuation of a startup. Expectations	
	include but not limited to an extremely high ROI and a fruitful	
	valuation which is scalable for future rounds.	
DCF	Although heavily dependable on predictions rather than realizations,	
	DCF provides a basis for the math of the deal. Additionally, careful	
	eyes may catch unrealistic forecasts or incompatible figures.	
Market	The analyst had the knowledge of similar deals in the same industry	
Comparables	and the same stage. Some adjustments are required though, since	
	some of the comparable deals are at developed markets.	

The analyst proceeds with the calculations and adjustments.

1. Berkus

Having the knowledge that the average deal size is 40% lower than the developed markets in that market, the analyst determines the cap of five factors as 300.000 \$ each, instead of 500.000 \$ per factor.

Then, after evaluation of the five factors by using due diligence report findings the analyst values these as following:

Sound Idea	150.000 \$
Prototype	300.000 \$
Management Team Quality	250.000 \$
Strategic relationships	300.000 \$
Product Rollout or Sales	200.000 \$
TOTAL	1.200.000 \$

2. VC

The VC firm generally invested with the expectation of 10X returns in developed markets. This time, although more risky, they set a achievable and more probable 7X target return to be realistic.

The analyst calculated the expected ARR at 5th year of the investment from the given financial projections as 1.800.000 \$. In the actual market conditions,

similar deals are valued at 5X to 5.5X ARR. Picking 5.25X, the terminal value at 5th year would be 9.450.000 \$.

To reach this figure with a 7X return expectation, today's valuation should be 1.350.000 \$.

Please note that, ROI expectation was not expressed in terms of IRR nor a WACC was not calculated. In real world, VCs usually target returns and predict terminal values in multiples.

3. DCF

To conduct this, the analyst calculated the cash flows for the first five years of the investment, used the same terminal value predicted based on the ARR, and picked the inflation rate as the discount rate:

CF at 1 st year	135.000 \$
CF at 2 nd year	410.000 \$
CF at 3 rd year	645.000 \$
CF at 4th year	880.000 \$
CF at 5th year	1.100.000 \$
Terminal Value	9.450.000 \$
Discount Rate	40%
DCF Valuation	2.230.000 \$

In common VC & PE practice, 8% is the widely accepted discount rate in developed markets. However, in the different emerging markets risk-free rates based on bond interest rates highly differ and might not be priced appropriately. So, an analyst shall use an higher discount rate specific to that emerging market. This may be inflation rate, deposit interest rate, or a similar. The higher it is, more realistic it is.

4. Market Comparables

The analyst was able to find four similar deals. The exercised valuation of two deals from a developed market were discounted by 40% again. An exercised valuation from a similar emerging market was converted into USD with that day's local currency rate. This one with the fourth comparable of this startup's market were used directly. The average exercised valuation of these four valuations was found to be 1.700.000 \$.

Please no that Price-to-Book Ratio or Price-to-Earnings Ratios cannot be calculated for a privately held startup at this stage, and in turn cannot be used as comparables as in stock valuation practices.

In the next step, the analyst assigned weights for the final values depending on the method used:

METHOD	VALUATION	ASSIGNED
		WEIGHT
Berkus	1.200.000 \$	15%
VC	1.350.000 \$	40%
DCF	2.230.000 \$	15%
Market Comparables	1.700.000 \$	30%

Rather subjective Berkus and VC methods were assigned lower weights. Market comparables method was given a double-times higher weight, since it reflects the fair value and the risk appetite of the market much better. The VC method was given the highest, thus the investor expectation is the dominant factor for the initial valuation. In addition, probably the VC firm would involve in executive and financial management to some extent, pushing the startup towards the target valuation.

Finally, the analyst calculates the weighted average for the valuation, and lower & higher bounds with a 90% confidence interval:

The Weighted Average Valuation: 1.564.500 \$

Lower Bound : 1.083.000 \$ Higher Bound : 2.158.000 \$

10 Effects of Regulatory Scene, Policies, and Incentives over Valuations

Although the regulatory appetite of the policy makers is rather high in less liberal emerging markets, they may choose to be wary when it comes to high-tech. And this vacuum may allow the necessary space to grow up fast in the early days of a startup.

In one real-world case, before a regulatory body is founded and authorized in the data scene, some data-tech startups rapidly grew by developing software which used unrestricted personal data without facing high legal fines and consequences. It is not the case now. After a tight regulation has been built, it is virtually impossible to use data in a commercially meaningful state.

However, this circumspectness can backfire. In the same emerging market, the restrictions on the cryptocurrency transactions retarded almost all of the emerging blockchain startups for a few years. The issue was recently solved after the regulations were converged to international standards.

In another real-world case, payment gateways and money transfers are banned for fintech companies and challenger banks other than the conventional banks. Then, hundreds of payment provider fintechs and other tech startups that collect revenues through those channels faced the risk of bankruptcy, many could not make it.

Those type of side effects alter valuations by changing the country, industry, or market average multiples and benchmarks, as well as perceived risk of startup investors.

On the other hand, as an obvious pattern, the necessity for attracting international investment usually leads the emerging market policy makers to offer advantageous tax regimes, eased financial and legal infrastructure, eased governance standards, and of course, subsidies and incentives.

In a recent real-world case, an electrical vehicle producer was given a customs tax exemption worth of 40% in an emerging market, but its competitors from the same country of origin were not. In this market, the customs tax was applied in a cost-plus manner. Thus, the electrical vehicle maker gained the privilege to use an additional 40% gross profit margin which can be employed freely against competition.

At the bottom-line, if the subsidies and incentives would be considered as liabilities on the balance sheets according to the accounting standards and commercial laws in force for that market, these shall be deducted from the calculated company value in most of the valuation techniques.

11 How to Conduct Due Diligence with this Information Asymmetry Challenge?

Due diligence practice requires a mixture of dimensions in emerging markets. As mentioned earlier, reliable data is scarce, and not easy to discover. Dissection of the process into the subsections below and seeking expert support may help.

- Financial Due Diligence: For the confirmation of the valuation, financial tables are examined. Thanks to IFRS, "the 3 statements" or equivalents will be available on-site. Multiples and ratios used for the valuation are checked over tables. Cash flow forecasts are compared with the actual. For startups, 3 statements can be immature, and may not reflect the valuation, though. The reliability of the assumptions used for predictions should be carefully determined.
- Legal Due Diligence: In some emerging markets, legal records may be decentralized over various institutions. Cross-checks should be conducted with all possibly related authorities to mitigate legal risks.
- Technical (Technological) Due Diligence: Startup valuations naturally outweigh the technological component of the business since the financial side is weak. This component often consists of deep technology such as AI, blockchain, IoT, and so forth, which probably the financial analyst would not be very familiar with. In such cases, the actual product, and its claimed value proposition as well as future development plans and assumptions shall be audited by domain experts.
- Sustainability Due Diligence: Emerging markets may lack the adequate regulatory framework and/or the necessary public budget to meet all international sustainability standards. So, it would be wise to seek compliance with all related parties' criteria and to obey the tightest sustainability restrictions possible.
- **Reputation Due Diligence :** Mostly overlooked, the reputation of the founders or the startup may be low among the stakeholders and public. The investor may find him/herself in an expensive deal in which the valuation could not be justified in further funding rounds or on the exit path.

What is ethical or legal in an emerging market cannot be so in the investor's country of origin, and vice versa. Analysts shall examine the findings of the due diligence with this point of view on the cross-country valuations and investments.

12 Portfolio Strategies and Portfolio Risk Management in Emerging Markets

Thorough due diligence per investee company may not be enough to minimize the risk of the overall portfolio given the risk level of emerging markets. Some strategies are brought into play to manage portfolio risks.

Diversification is the prominent buffer for a startup investment portfolio. If the portfolio's investees are predominantly from emerging markets, an additional layer of diversification among several emerging markets, emerging technologies, and industries may work well.

Hedging across the markets is also necessary to avoid the hazardous effects of currency fluctuations over the portfolio.

Transferable and scalable businesses provide extra resilience and adaptability for the portfolio as well. What is meant is that, if a transferable business that fails in an emerging market for an unavoidable local factor could succeed when positioned in another emerging market, overall portfolio success is enhanced then.

Valuation swaps are another cross-market strategy in the startup business. After a closed investment round, relocating from a market with a lower average multiple in a particular parameter to a market with a higher average for that parameter may allow the investor to gain a valuation premium.

Finally, alternative legal structures such as SPVs and alternative methods such as mezzanine financing may work better to manage overall risk. Many emerging markets offer different financial instruments for startup investing and the startup investor can find more attractive investment methods than the traditional investment vehicles.

13 Behavioral Economics: The Role of Psychology in Determining and Negotiating Valuations

As mentioned earlier a few times in the previous sections, the very first valuation is usually an agreed one, not a precisely calculated one. This valuation will be one of the key determinants of further valuations on the startup's lifespan. Thus, it can be said that psychological factors influence the valuations through investors' and founders' behaviors during the negotiation process.

Arguably, the basic reason can be the initial conflict of interest. The founder tries to maximize the first valuation to raise the maximum amount of funds in return for the minimum shares outstanding, whereas the investor pursues to lock a "good deal" with the highest possible gains through a minimum amount of investment (there are exceptions as always). Combined with several cognitive and behavioral biases revealed by Kahneman (2011), this initial negotiation is built on a rather irrational basis. According to Gompers et al. (2020) "almost half of the VCs, particularly the early-stage, IT, and smaller VCs, admit to often making gut investment decisions".

Data and fact-driven reasoning are recommended to challenge these incompetencies. For an effective valuation practice, the analyst shall

- source relevant data,
- consider the emerging market's unique dynamics,
- be aware of cognitive biases,
- conduct a thorough due diligence,
- consult independent experts if applicable.

Parallel to the Game Theory, if both parties prioritize maximizing their own benefits, which is expressed in their proposed valuation as well, they cannot come up with an agreement. Oftentimes, undue influence may force one party to accept unwilling terms in

the course of the fundraising process, but my personal experience as an analyst and investor confirms the fact that those types of agreements are usually not executable and are sentenced to fail. Totally equalized terms would not work either, due to the lack of enough incentives. From this point of view, it can be assumed that the proper first-time valuation is the one that works and allows the startup to keep going forward, and the investor keeps the appetite to accompany.

Transparency and honesty are said to be a cure for information asymmetry, although it would be naïve to believe they would be on the table all the time during the negotiations.

One last word: The investors sometimes lengthen the negotiations. This is not always a negotiation tactic as the founders like to believe. Rather, it aims to observe the startup's resilience over time in the turbulent nature of an emerging market.

14 Exit Strategies in Emerging Markets

The exit strategies are more or less the same in the emerging markets compared to the developed markets. Depending on the immaturity and volatility of the emerging markets, the chosen exit path may differ, though.

For a startup in an emerging market, the IPO path is, at least locally, an obstacle course. Stock exchanges set hard-to-reach financial limits accompanied by strict regulations and red tape. On the other hand, investor pressure (IPO is considered as a final exit, not an inbetween funding round) or a fuzzy cap table (scarcity of early funding usually causes a crowded cap table with smaller tickets) can avoid an IPO.

A viable exit route may be the acquisitions. Smaller valuations of emerging market startups make them attractive for their global or regional competitors. Vertical integration from a global customer or supplier is likely sometimes. Please note that hostile take-overs or buy-outs are not quite common in emerging market startups, since the fragile nature of the startups usually does not resist the inexistence of the founder team. In addition, cultural factors make it hard for the markets to accept this kind of acquisition as a formal strategy.

Mergers may be used to elevate the valuations to an adequate level meeting the IPO requirements for gaining IPO access.

Secondary buy-outs and leveraged buy-outs are hard paths as well, since the related markets are undeveloped, allocated capital is weak, and the financial risk after the buyout is somewhat unmanageable in emerging markets, thanks to the weak debt-servicing capacities of the startups.

Crowdfunding can provide an IPO-like funding opportunity, relatively small but with less regulations for a startup, which may be more viable in an emerging market. In addition, besides financing, crowdfunding is commonly used to set the initial valuation with the masses in the lack of professional investors at the early-stages.

Finally, emerging market authorities found alternative markets occasionally to challenge market inadequacies. For instance, in Turkiye, a Private Equity Market was founded under the stock exchange recently. In this market, startups can raise funds and work through compliance with IPO criteria, venture funds can raise LP money from qualified individual investors and conduct secondary transactions. Valuations are obliged to be

determined by market makers, accredited consultants, and brokerage firms to achieve a fair and reasonable valuation.

CONCLUSION

Emerging market valuations deviate from developed market valuations in numerous ways because of the differences in major drivers. Even the developed markets have a certain level of instability due to inflation, money supply issues or trade wars. Besides, startup valuation is not a straightforward one such as valuing a publicly traded stock or a conventional enterprise. Combining two, emerging market startup valuation is a unique challenge itself.

Both the investors and the founders require a basis for this practice which can clear the fog of uncertainty and subjectivity. Building a reliable framework for this was the main purpose of the chapter.

Obviously, "black swans" (Taleb, 2007) of the markets and humankind, as well as the unpredictable nature of the deep technologies such as artificial intelligence or space mining will create further considerations in startup valuations. The analyst has to adapt the used methodology to new paradigms regularly.

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KEY TERMS AND DEFINITIONS

Crowdfunding: Raising funds from small investors to finance a startup, a project, or a charity similar to an IPO, usually via an online accredited platform in an eased way.

Deal: A transaction or an opportunity for a transaction that involves gaining shares of a startup.

Dry-Powder: The reserved money that is not yet invested, kept for follow-up or further investments by an investor, fund, or investment firm.

Due Diligence: The research and audit process aiming to determine the status of a company in a particular function like legal, financial, technological, etc.

Exit: Selling the previously bought shares or conducting a similar financial transaction for them to realize the profits earned.

Fintech: Startups that produce technological products or services in finance, such as payment gateways, challenger banks, online funding, etc.

Initial Public Offering (IPO): The very first selling of the shares of a privately-held company to the public and investors over the stock exchanges.

Private Equity (PE): All kinds of equity transactions related to privately held-shares of a company or asset including but not limited to VC, risk capital, M&A, IPO, privatization, taking to private, buyout, etc.

Venture Capital(ist) (VC): An investment type/investor which targets to buy minority shares of a promising technology company, expecting to sell the shares in return for a remarkably high gain in future.

Special Purpose Vehicle (SPV): A legal entity founded to execute a particular financial transaction such as an acquisition of a startup, or taking a publicly traded company to private.