DETERMINANTS OF THE STARTUP VALUE: WHAT MAKES A STARTUP A UNICORN

by

Vadym Chernikov

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Thesis Supervisor: Professor Elena Besedina

Approved by
Head of the KSE Defense Committee, Professor [Type surname, name]

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LIST OF ABBREVIATIONS

VC Venture Capital

M&A Mergers and acquisitions

CA State of California

YC Y Combinator

CEO Chief Executive Officer

MBA Master of Business Administration

COVID-19 Coronavirus disease of 2019

CHAPTER 1. INTRODUCTION

Today, there are many methods of investing your own savings available. Even ten years ago, buying shares on the stock exchange or investing in startups seemed like something very distant. Now, thanks to interactive online platforms, anyone can feel like an investor or shareholder. This openness has led to a boom in investment, including venture capital. And as a result, a record increase in the number of billion-dollar startups, the so-called unicorns. In the first five months of 2021, 166 new unicorns have already appeared. This is more than for the whole of 2020 and is very close to the record 2018 when 173 of them appeared. Considering that this is the result in less than half a year, it is highly likely that this year will be a record year for the number of new billion-dollar companies.

In addition, the time it takes for a startup to reach a billion-dollar value has also changed. The venture capital market is looking more and more long-term, so interesting business models are getting high marks much faster than they used to be. So in May 2021, the PIPE startup raised a new round of investments valued at 2 billion. Everything would be usual, but it was founded in 2019, and the service was launched in the middle of 2020. A year after the end of work on the product, the startup is already worth 2 billion. Also, a great example is the new social network Clubhouse, officially launched at the end of 2020. In April 2021, the company attracted a round of 4 billion valuation, phenomenal growth.

Considering that startups are growing faster, the number of unicorns is breaking records, and venture capital investments are booming, an obvious question arises - how to make money on this and how to comb out a unicorn at an early stage, investing tens of thousands at the exit to get tens of millions?

I will try to answer this question in my work. By combining my entrepreneurial and analytical experience, I want to check - which factors will make it easier to find potentially promising startups. I will do this by analyzing data from startups in different stages. The result of the work should be an answer to the question: does basic data about the newly created company indicate the probability of growth to a unicorn for this startup? Can we find some patterns that will help us to find out which companies are more prospective in the future? To identify this, we will analyse geographical, gender, educational and other factors that can be simply and fairly compared.

The main goal of this work is to simplify the job of investing in startups. The algorithm that will ultimately evaluate startups will definitely not be able to exclude the work of analysts completely. Investments in companies and making forecasts are in any case based on the value judgments of experts. However, such an algorithm can weed out fundamentally unpromising companies and give the analyst team priorities, which companies should be paid attention to first. This approach can significantly optimize the workflow of venture funds and private equity funds.

Also, results of this work can be useful for entrepreneurs and future startup founders. In this work will be mentioned factors which are really important for the company, as well as factors that are famous stereotypes about project success. In the end we will find out, is it necessary for the company to participate in startup accelerators, relocate to California or Silicon Valley to headquarter there, or is it necessary for future CEOs to study in top-tier universities, or enroll in MBA programs?

In 2021, the usual perception of asset value is very different from what it was fifty, twenty, or even ten years ago. If once companies were evaluated by the amount of revenue a company generates, the number of dividends it can pay to its shareholders, or by the size of the market that it has occupied, now everything is much more complicated. Yes, all of the above parameters still impact, but now the assessment has become much more complex. Valuation depends on dozens of factors that can impact a company in

the future. That is why we can observe such phenomena as Tesla, which has lower financial indicators than its competitors but surpasses them in terms of enterprise value dozens of times. Or like Clubhouse, it was hard to imagine that the company, after launching the alpha version of the product, could be valued at $4 billion in half a year.

These and many other examples lead to a simple question: Can a company be worth billions within a month after its creation? How to define its perspective correctly? This is a question asked by venture capitalists, private equity funds, and millions of individual investors. They all want to answer the question as accurately as possible, the company in which I am investing - a unicorn?

Let's start with what a startup is and what its life cycle looks like. A startup is a young private company that most often works on a specific technological product. In this work, all the companies that will be considered are internet-based companies from different industries.

The life of a startup consists of various periods of work on a product, changes in financial indicators (pre-revenue -> generating revenue -> generating profit, etc.), as well as multiple rounds of funding (attracting investments). A startup is considered healthy when it regularly attracts new rounds of funding and increases the company's value. The faster this estimate grows, the better because this is one of the indicators of the growth of the startup speed.

The valuation also depends on several factors. The product the startup is working on and the size of the market the company is targeting. Sustainability of the business model, skills of team members. These are also financial indicators, their dynamics, margins, cohort analysis, and other indicators at later stages. In total, dozens of factors affect the final valuation.

To better understand how starting factors really affect future companies, I came up with the idea to consider what dependencies and patterns exist in assessing startups. My hypothesis in this study is that already at an early stage, you can calculate the probability with which this startup will turn out to be a unicorn. This will help you choose the most promising ones and analyze them in detail manually. And also highlight the least promising startups with the lowest priority, which, in general, can not be considered.

This work should answer a simple question: Venture investments - is it closer to the exact science and structuredness? Or it is more relative to art, feeling, and understanding of the work of business processes, intuition, and predicting trends. Understanding which factors have positive or negative effects on startup valuation will give us an answer.

Also, the use of such an algorithm can help a number of categories: venture and private equity funds - they will be able to screen faster to determine investment priorities. It is also important for private investors to understand the potential prospects of their angel investment. Such an algorithm can help even entrepreneurs themselves, who, having checked their data, will be able to understand their weak points and make certain adjustments to the business model or the composition of the team.

Until recently, there was not much data that was systematized enough for such an analysis. However, the emergence of specialized narrow-profile databases and publications facilitates research in this area. In 2021, the venture investment industry will be at its peak, and due to the fact that this direction is new, not so much work has been written on it. In this regard, I see great promise and potential for my research.

CHAPTER 2. INDUSTRY OVERVIEW AND RELATED STUDIES

The VC industry is booming, with the number of investor companies and capital raised steadily increasing. First, some statistics you can see in Figure 1:

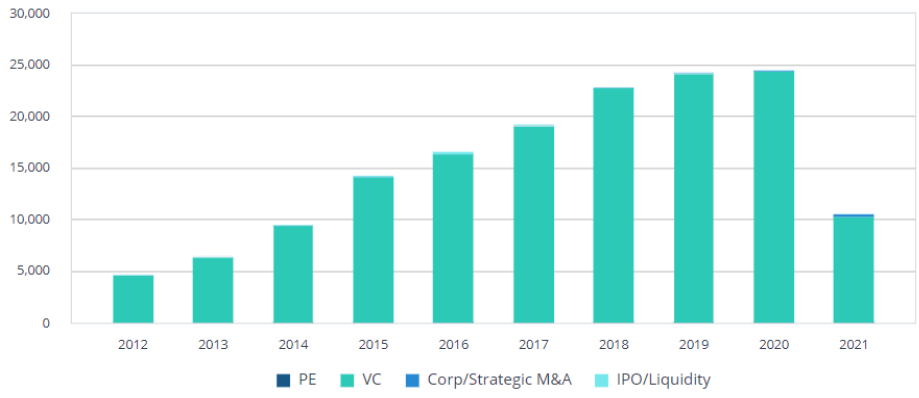
Figure 1. Quick VC Statistics.

Source: Pitchbook.

At the moment, there are almost 90 thousand companies on the market that have received venture capital investments from about the same number of investors within the framework of more than 250 thousand. At the same time, only 4.8 thousand companies made exits (the dust was absorbed or went to the IPO). The most expensive exit was 25B; this is Microsoft's purchase of the startup LinkedIn in 2016.

At the same time, we can see a constant increase in the number of transactions in VC (Figure 2). Despite a slowdown in 2020, this growth is projected to recover as early as 2021.

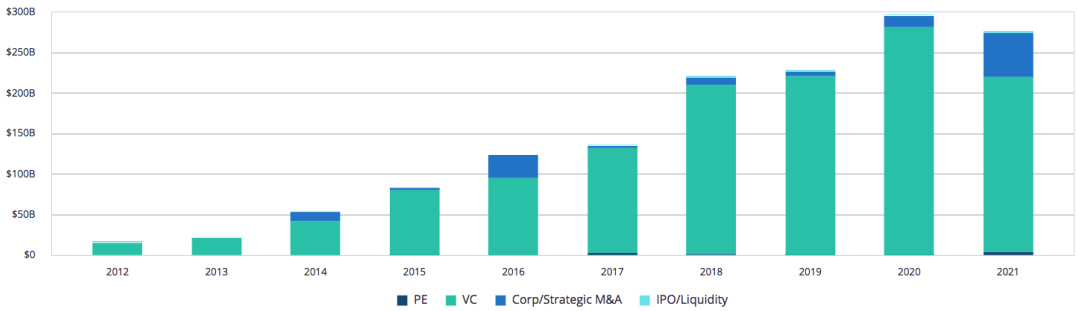
Figure 2. The number of VC deals by year.



Source: Pitchbook.

Moreover, if we look not at the number of transactions but at their volume, this growth will become obvious. 2020, despite the COVID-19 pandemic, set the record for VC investments by a margin (Figure 3). And 2021 practically repeated this result only in the first five months.

Figure 3. Size of VC deals by years.



Source: Pitchbook.

The most active players are also worth noting. In terms of the number of deals, the leading accelerators are Y Combinator, Plug and Play, 500 Startups, and Techstars. Interestingly, these accelerators always invest small amounts very early on. In addition to money, such accelerators provide startups with the necessary contact base, mentoring, and assistance with the development of the company. Every year they process huge amounts of information and applications from companies. For example, in 2021, Y Combinator accepted 313 applications for its accelerator and received more than 10 thousand applications. An algorithm for analyzing startups at an early stage could also greatly simplify their screening.

Over the years of its existence, the top 3 most active accelerators have invested in more than 6 thousand companies (Figure 4). Of these, many have succeeded and have made exits. They also have a large number of unicorn companies in their portfolios. Thanks to the strategy of investing at an early stage in a large number of companies, they maximally diversify the risks in their portfolio. At the same time, they often invest in

companies that are less than real. They manage to do this because, in addition to money, they provide an additional resource - contacts and mentoring. This factor becomes very important for companies that, for example, target the American market but are not founded by Americans. In this case, they will receive assistance in finding the right partners and making the first B2B sales. In addition, being a graduate of one of the top accelerators is prestigious; this shows that a startup has passed a very competitive selection and increases its chances of attracting investments in the future. What we will check in the framework of this work.

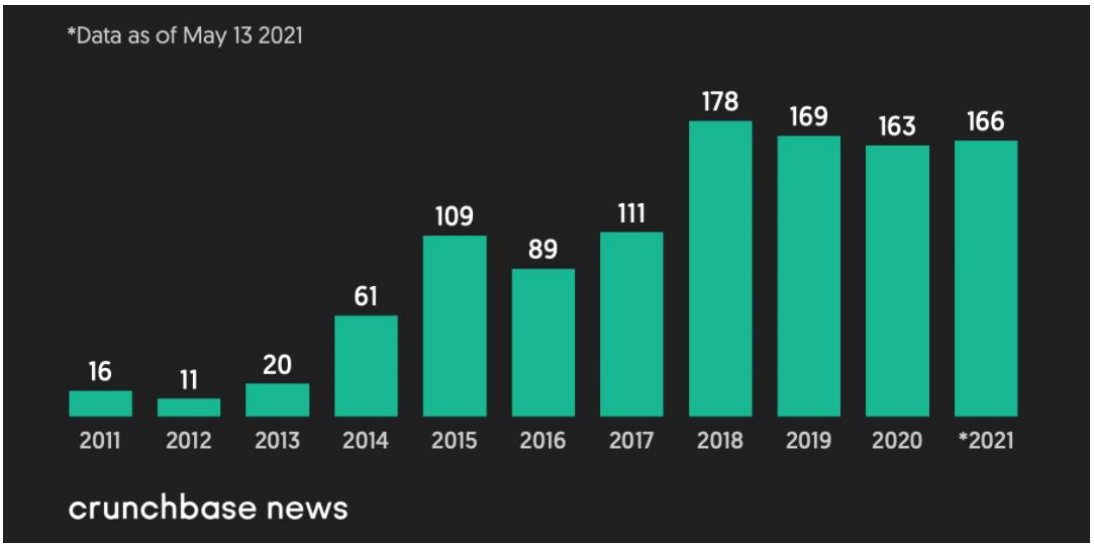
Figure 4. Top Players in VC investments.

Source: Pitchbook.

If we turn to the consideration of the number of unicorns, then we can note that their number is also growing. 2021 has already surpassed the previous year in their number and is more likely to set an absolute record for the number of billion-dollar companies in one year (see Figure 5).

This factor also indicates that the VC industry will attract more investors, and more and more will need an accurate valuation of companies.

Figure 5. New unicorns since 2011.



Source: CrunchBase.

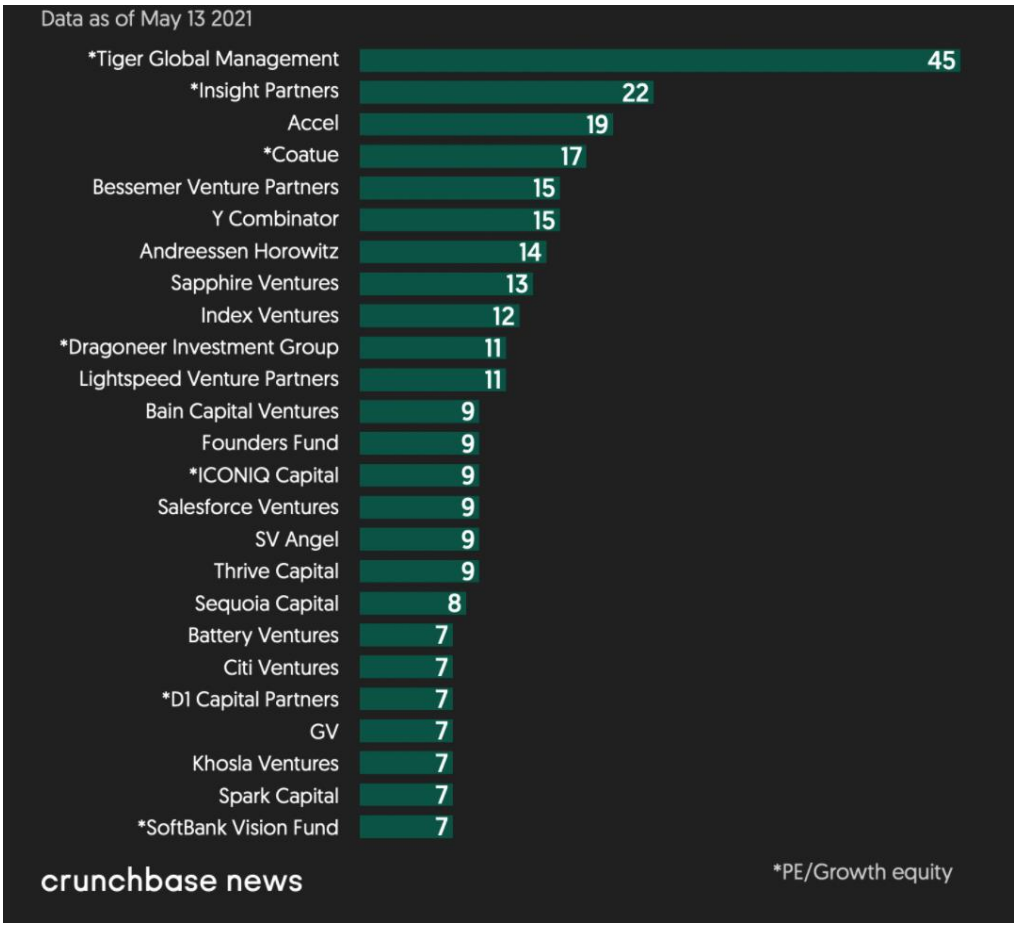
It is also worth noting that most of the unicorns are in the portfolio of companies that invest in the late stages of startup development. In particular, in 2021, the Tiger Global fund is the first by a wide margin. This fund enters mature companies already at a high valuation, minimizing its risks at the expense of the later stage of the company. At this stage, the company already has serious financial reports, shows clear growth, and, in general, it is much easier to assess its further potential at this stage.

However, the previously mentioned Y Combinator record holder is also in the top ten. It ranks 6th with 15 new unicorns in its portfolio for 2021.

From this, we can conclude that with a huge amount of investment, accelerators still find it difficult to compete in the number of unicorns with those who invest at a later stage (Figure 6). The accuracy of early predictions is much lower at the moment. This

factor also indicates that the VC industry will attract more investors, and more and more will need an accurate valuation of companies.

Figure 6. New unicorns in the portfolio in 2021.



Source: CrunchBase.

The valuation of startups has been repeatedly studied in scientific papers by employees of European business schools. The most interesting works were done by Damiano Montani et al. (2020) and Mathias Rohde Olsen (2019). Both of these studies talk about the fundamental factors of startup evaluation. They analyze all the options for evaluating startups and the criteria by which the company can be evaluated. However, they do not

examine how strongly the evaluation depends on each of them but evaluate them separately. In an integrated and more statistical approach, my work will differ from the above. In my work, I will rely on these works with a selection of criteria, but I will try to formalize the process, see what factors influence the company by how much. Also, I will separately take factors that are not obvious in the standard assessment and see how they ultimately affect the startup and whether they do. So I can rate any investor bias towards startups. Perhaps, which they do not put into official evaluation factors, but which ultimately influence it.

CHAPTER 3. METHODOLOGY

To assess how strongly certain factors will affect the assessment of a startup, I collected data and built an econometric model of dependence. As a dependent variable, I chose the startup valuation (post-money, that is, the valuation at the time of investment + the amount of capital invested). Valuation size is taken from the public information on last round financing. As variables, I took those factors that are known at the early stage of creating a startup:

- **Year of foundation**. Year in which company was founded. Here, the hypothesis is that older companies will value more, since they have more time for business development. But looking at fast growing companies that became unicorns in 2021, this can not be true. So I added a year variable to check it.
- **Last round size**. Since, when a company receives a financial round, it sells part of its equity, it is logical to assume that the larger the company's round, the greater its valuation. However, there are a number of exceptions, young fast-growing companies can attract financing under a large part of the company to quickly capture the market. Also, sometimes the size of the round does not reflect the real assessment of the company, for example, accelerators finance companies for small amounts, but startups with high ratings also strive to get into the top accelerator not for funding, but for other added value.
- **Amount of raised funding for all time**. Similarly, this indicator can positively correlate with valuation, since the more the company has already raised money, the more equity it has.
- **Number of employees**. An interesting indicator, since, on the one hand, it should positively correlate with valuation, since developed companies have a larger staff. On the other hand, we are considering internet-based companies, in which traditionally more revenue comes per employee (compared to classical business models). For example, Facebook bought Instagram for $ 1 billion in

2012 and at that point Instagram had only 13 employees. Therefore, it is interesting to check how the current number of employees actually correlates with the value of the company.

- **Geographical location**. Where exactly the company is registered and how it affects its valuation. There are many stereotypes regarding company registration in locations popular among startups. In terms of geographic indicators, I checked:
    - How a startup's valuation is affected by its presence in California.
    - How the valuation of a startup is affected by its location in Silicon Valley (a number of cities in the State of California, where Stanford University and the headquarters of most American IT corporations are located).

Traditionally, being in these places is considered to have a positive impact. This is due to the fact that there is a large ecosystem of specialists, potential partners and angel investors for a startup.

- **CEO's gender**. In this variable, I want to test whether the gender of the founder somehow influences the success of the company. Since most IT executives are male, it may be easier for them to get funding from investors. Therefore, in this criterion, I check if there is any gender discrimination of the CEO.
- **CEO's education**. Here I also want to check the factors that are often considered necessary for a startup to succeed. In my research, I looked at the following options for CEO education:
    - **The CEO of the company studied in the MBA program**. I take into account any MBA program at any university's business school. This criterion is taken as the fact that the head has a business education.
    - **The CEO of the company studied at one of the Ivy League universities** (8 universities in the western United States, this community of universities is considered the most prestigious). The factor is taken in

order to check how the success of the company is influenced by a CEO who studied at a tier-1 university.

    - **The CEO of the company studied at Stanford University.** Stanford University is considered the best university for working with the IT business. Since it is not in the Ivy League, due to its location in the east, I tested it as a separate variable.

- **Participation of the company in top accelerators.** Startups participate in acceleration programs to obtain mentoring expertise and the necessary networking. To do this, they are ready to provide the accelerator with a share in the company at a significantly lower price than for other investors. I selected Y Combinator and Techstars accelerators as the most elite and tested how they affect the future success of the company.

The variables that are responsible for the year of creation, the size of the last round, the number of employees and the amount of attracted investments contain integer values. The rest of the variables that are responsible for gender, location, education and participation in accelerators are dummy variables, which take the value 1 or 0, depending on whether a certain fact is true or not.

To test hypotheses and determine the correlation between the listed variables and the valuation of the company, I use linear regression. I use ordinary least squares (OLS) in my work for estimating the unknown parameters in a linear regression model. The model is expressed in the formula (1):

$$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \ldots + \beta nXn + \xi \qquad (1)$$

Where: Y - company's post-money valuation (dependent variable),

$X1$ - Xn - introduced previously criterias (explanatory variables)

$\beta 0$ - Y intercept

$\beta 1 - \beta n$ - slope coefficients

ξ - random error term

In order to avoid multicollinearity, I made several models by replacing variables that are dependent. For example, I do not use variables allocated for a location in one model. In one regression, I add CA (the dummy variable for registering a company in the state of California), but I do not use the variable Valley (the dummy variable for registering a company in Silicon Valley). This is due to the fact that Silicon Valley is located in the state of California, so these variables are dependent on each other.

Also, in addition to correlating the variables with the valuation of the company, I also checked the correlation with the generated revenue. This can also be relevant as companies can pay dividends to shareholders and it can also be a positive factor for investing in a company.

CHAPTER 4. DATA

I take the data for the research from the Pitchbook. It is a website that brings together information about startups, investors,s and public companies. Data is collected on the basis of public information, as well as independently entered by foundations. Also, I add a lot of parameters manually by hand. For example, data on CEO's gender and location I collected on LinkedIn, Crunchbase and other public sources of information.

I collected a sample from 358 companies. The companies were completely random but filtered by certain criteria. First, all of the companies in the sample are existing private companies. I did not include companies that went public or went M&A in the sample, since they are not startups anymore. The second filter is location. All companies in this sample are headquartered in the United States but may have offices in other countries. I added only one country to put all companies in the same conditions (in terms of legislation, taxation and other important factors for startup development). And given that the specifics of company valuation can differ significantly in different countries, I decided to take only one geography for simplification.

In addition, I have set a limit on the year the company was founded. There are no companies in the dataset that were founded before 2010. Also, the maximum year of foundation is 2020. Most of the companies in the sample were founded in 2017. All surveyed companies are actively conducting business activities at the moment, there are no companies that have been sold or out of business.

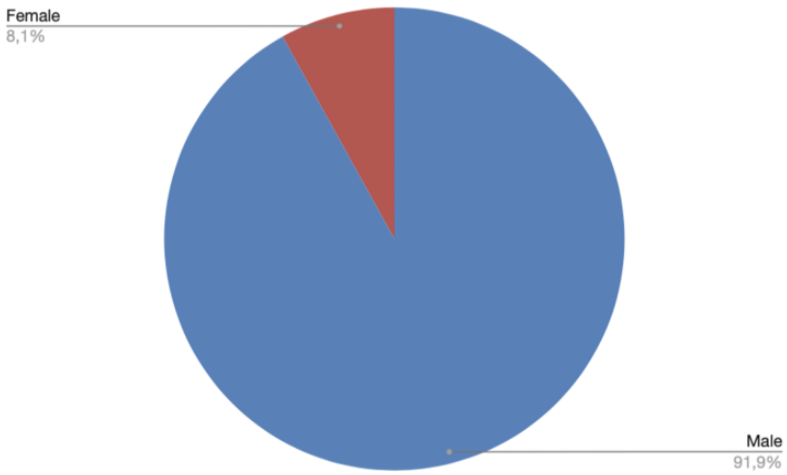
As a result, a lot of interesting and well-known companies appeared in the sample. The companies studied include WeWork coworking network, Patreon crowdfunding platform, StockX sneaker service, Scopely game development studio, Deel financial service and many others.

As for the numerical indicators, this sample contains companies with valuation from $2 millions to $28 billions. The median valuation is $140 millions. The median revenue and the median size of the last round of investments coincided and equaled $ 30 millions per company. The median value of all attracted investments was $56 millions per company.

Also, the sample came out very motley in terms of the number of companies' employees. The young startup Steamchain has only three employees, and the international company Allied Universal has 265 thousand. The median number of employees is 120 per company.

Although the companies were chosen at random, most startups have male CEOs. This may be due to a global trend, more male students from both technical departments and business schools. In addition, it may be related to gender discrimination. As a result, most internet-based companies are currently headed by men. In the sample, 330 CEOs of companies are male (92%) and 28 CEOs are female (8%), see Figure 7.

Figure 7. CEO's gender distribution.

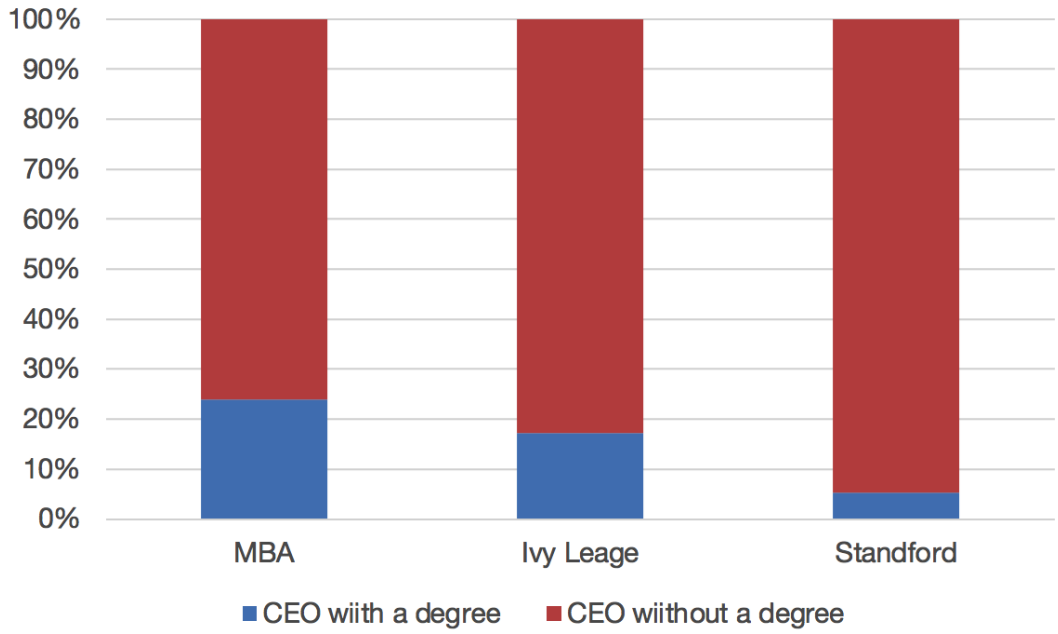


Source: Dataset's descriptive statistics.

Most of the companies from the sample did not go through acceleration at Y Combinator or Techstars. Of the randomly selected companies, 35 startups (13%) participated in acceleration programs.

In terms of CEO education, 86 companies (24%) have a CEO who has completed an MBA program. 62 companies (17%) have CEOs from an ivy league university. Also in 19 companies (5%), the CEO studied at Stanford University (Figure 8).

Figure 8. CEO's education distribution.

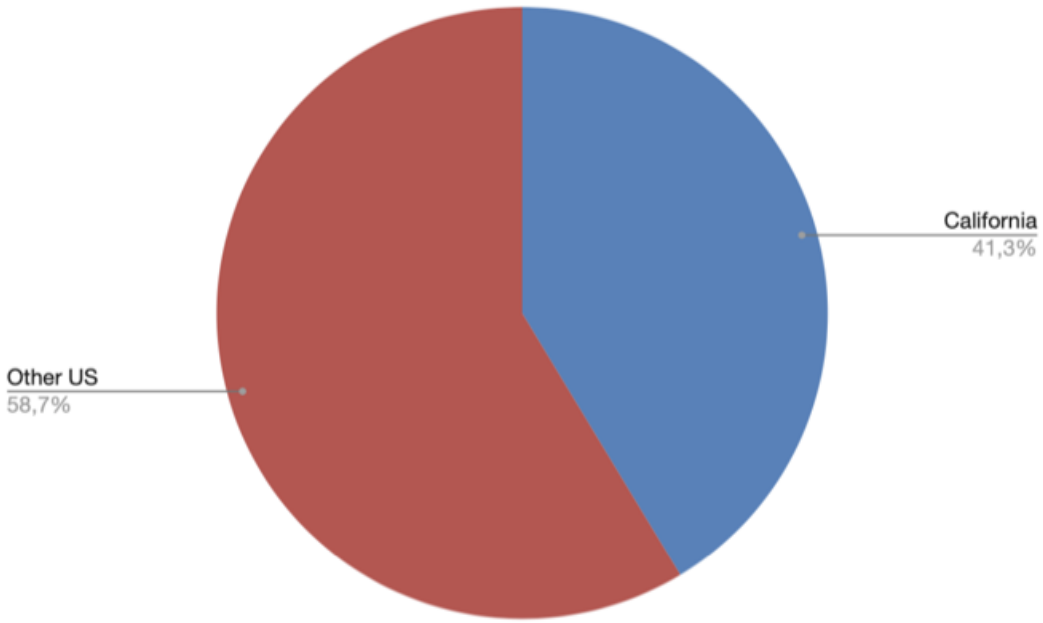


Source: Dataset's descriptive statistics.

Geographically, I have identified companies that are located in the state of California, as well as in the cities of Silicon Valley. 148 companies (41%) are registered in California, 200 (59%) in other regions of the United States (Figure 9). Considering that companies

were chosen at random in the United States, this clearly shows how popular California is for registering companies and how many new companies appear there.

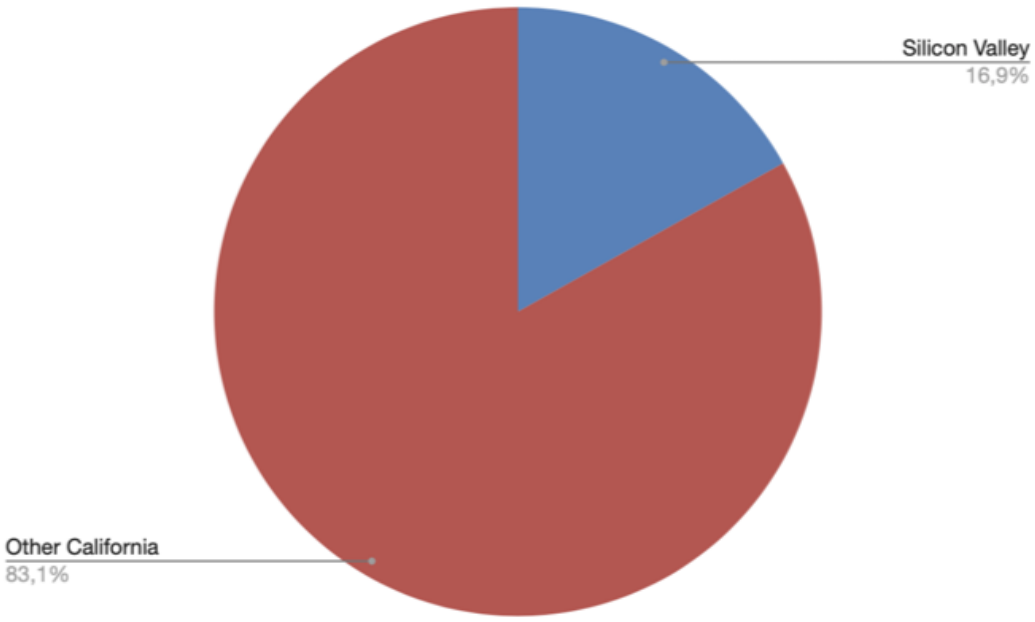
Figure 9. Geographical distribution (California vs other states).



Source: Dataset's descriptive statistics.

Also, 25 companies are registered in the cities of Silicon Valley (13 cities in California where thousands of high technology companies are headquartered). This is 7% of the total number of companies, or 17% of all California companies (Figure 10). The most popular towns in the valley in the sample are Palo Alto and Mountain View.

Figure 10. Geographical distribution (Silicon Valley vs other California).



Source: Dataset's descriptive statistics.

Also, companies are absolutely diverse in terms of the number of active investors. Sample companies have from 1 to 82 investors. The median value is 10 investors in one startup.

CHAPTER 5. RESULTS

After building the model, I got the results, according to which some variables have statistically significant correlation with the company's valuation and revenue. Detailed results of first regression can be found in Table 1:

Table 1. Regression results 1.

Coefficients:	Estimate	Std. Error	t value	Pr(>|t|)	Significance
(Intercept)	5.694e+03	8.662e+04	0.066	0.94763	
Fin_Size	8.002e-01	1.577e-01	5.074	6.43e-07	***
Revenue	-1.118e-02	4.439e-02	-0.252	0.80137	
Invest_num	2.643e+01	7.977e+00	3.313	0.00102	**
Raised	1.998e+00	1.000e-01	19.976	< 2e-16	***
Male	3.907e+01	4.131e+02	0.095	0.92472	
Year	-2.90e+00	4.297e+01	-0.067	0.94624	
Employees	-6.786e-04	7.626e-03	-0.089	0.92914	
CA	5.113e+02	2.228e+02	2.294	0.02237	*
MBA	9.658e+01	2.500e+02	0.386	0.69948	
Ivy	-5.82e+02	2.823e+02	-2.062	0.03994	*
Stanford	-9.69e+01	4.879e+02	-0.199	0.84257	
Y Combinator	-2.42e+02	-0.541	-0.541	0.58908	
Techstart	-5.94e+01	5.848e+02	-0.102	0.91909	

* indicates statistical significance at the 95% confidence level, ** 99% confidence level, *** 99.9% confidence level

Variables in the table indicates this parameters:

- Fin_Size - size of last financial round
- Revenue - company's revenue for the last financial year
- Invest_num - number of currently active investors
- Raised - amount of raised funding for all time
- Male - dummy variable, that equals 1 if company's CEO is male
- Year - year of company foundation
- Employees - number of company's employees
- CA - dummy variable, that equals 1 if company headquartered in the state of California
- MBA - dummy variable, that equals 1 if company's CEO has MBA degree
- Ivy - dummy variable, that equals 1 if company's CEO studied in one of Ivy League university
- Stanford - dummy variable, that equals 1 if company's CEO studied Stanford university
- Y Combinator - dummy variable, that equals 1 if company was accelerated in Y Combinator
- Techstart - dummy variable, that equals 1 if company was accelerated in Techstart

5.1. Correlation between company's valuation and investment activity.

First obvious result that we faced is a positive correlation between valuation and last round funding, all time funding amount and number of active investors. The situation with the size of the last round and all rounds looks pretty obvious. The higher the valuation of the company, the more financing it can attract through the sale of its assets.

The situation is more interesting with the number of active investors. This number also has a positive effect and this may be due to a lot of networking when attracting different investors. Startups are trying to attract investors who can help the company develop, sometimes letting them into already crowded rounds, just that there was an opportunity to turn to them for help.

But other than that, the number of investors can obviously be related to the number of funding rounds. The more rounds there are, the more fundraising and new investors

can be added at each new one. And the number of rounds has the same effect as the volume of investments (more rounds = more amount of attracted investments).

Since financial variables can be directly related to valuation (a company cannot raise more funds than its own valuation, if we are talking about venture financing through the sale of eqity), I excluded them in further regression to increase the accuracy of the model. The results of the second regression are presented in the Table 2:

Table 2. Regression results 2.

Coefficients:	Estimate	Std. Error	t value	Pr(>|t|)	Significance
(Intercept)	2.201e+05	1.336e+05	1.647	0.098	.
Revenue	5.451e-02	6.919e-02	0.788	0.4314	
Male	4.822e+02	6.460e+02	0.746	0.4559	
Year	-1.09e+02	6.627e+01	-1.646	0.1	.
Employees	2.451e-02	1.170e-02	2.094	0.0370	*
CA	8.175e+02	3.436e+02	2.379	0.0179	*
MBA	-7.14e+01	3.906e+02	-0.183	0.8551	
Ivy	-4.35e+02	4.380e+02	-0.993	0.3215	
Stanford	5.447e+01	7.611e+02	0.072	0.9430	
Y Combinator	-1.24e+02	6.843e+02	-0.181	0.8566	
Techstart	3.881e+01	8.969e+02	0.043	0.9655	

. indicates statistical significance at the 90% confidence level ,* 95% confidence level, ** 99% confidence level, *** 99.9% confidence level

5.2. Revenue does not affect the valuation, the age of the company and the number of employees have a positive effect.

As described earlier, a company's revenue is not a deciding factor when evaluating a startup. My research confirms this fact by showing that there is no correlation between revenue and valuation. This is due to innovative business models, which at the first stage require active development and improvement of technology, as well as the capture of the market by the product. Companies like Uber, Amazon or Tesla are still unprofitable, but these are not hindering their growth in value.

The situation with the year of creation and the number of employees looks very logical. Older companies are more expensive due to the more time they have spent developing the business. The number of employees also affects positively - more employees -> more business -> higher valuation. Also, the number of employees similarly positively affects not only valuation, but also the revenue of the company, which I checked in regression, where revenue was chosen as the dependent variable, see Table 3.

Table 3. Employees coefficients in regression results 3.

	Estimate	Std. Error	t value	Pr(>|t|)	Significance
Employees	3.663e-02	8.891e-03	4.120	4.75e-05	***

5.3. The gender and education of the CEO does not affect the valuation of the company.

As can be seen from the results of the second regression, the fact that a CEO has an MBA, went to an Ivy League university or Stanford is not statistically significant. Likewise, there is no correlation between the gender of the CEO and the valuation of the company. Also, these factors do not correlate with the company's revenue.

5.4. The location of the company matters.

Based on the results of regression 2, we can make an unambiguous conclusion that the location of the company in the state of California has a positive effect on the valuation of the company. At the same time, the regression where I used the location variable of Silicon Valley showed that the location in the cities of the valley is statistically insignificant (Table 4).

Table 4. Silicon Valley coefficients in regression results 4.

	Estimate	Std. Error	t value	Pr(>|t|)	Significance
Valley	-3.82e+02	6.527e+02	-0.586	0.5585	

From these results, we can conclude that the existing opinion that companies from California are valued more expensively is true. It does not matter if the company is located in the cities of Silicon Valley or in another city of California (for example, San Francisco, Los Angeles, and others).

Also, even just looking at descriptive statistics, given that the choice of companies was random - a very large number from California (41.3% of the total number of companies). This may indicate a general tendency to strengthen California as the center of the US innovation and technology center. In addition, it may be the result of companies realizing that a location in California will increase their value and are registering in that state on purpose.

5.5. The company's participation in accelerators has no direct impact on the company's valuation.

While it is widely believed that participation in Y Combinator or Techstars further increases a company's valuation, the model's results showed that these variables were not correlated with valuation. They also do not correlate with the revenue of the company.

This factor can become important for teams that apply to participate in accelerators, as this requires a large time resource and, as a result, is quite expensive (the company sells part of its equity, most often significantly lower than the real value).

CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS

As a result of the work done, I investigated which factors influence, and which, in spite of common stereotypes, do not affect companies valuation. In the my work, I assessed whether revenue affects valuation, whether participation in top venture accelerators or the company's geographic location affects. In addition, I checked what characteristics of the CEO of the company are weighed, whether in some way the top education or gender of the founder influences.

As a result of the work, it was found that some factors that are traditionally considered positive do not have a clear correlation with the value of the company. So, in the course of the work, it was not possible to establish a clear relationship between the fact that acceleration at Y Combinator or Techstars in the future will positively affect the valuation or revenue of the company.

This fact is primarily important for the startups themselves to understand whether it is worth participating, since participation in the accelerator has a high cost if the company is successful. For example, YC buys out 7% of companies in its cohorts. However, he does it for a small cost (from 80 to 120 thousand dollars). Most often, already at the time of this purchase, the real valuation of the companies is much higher. In this case, the company receives not so much money as assistance in the development of the company, training, mentoring and networking. However, if these factors, as a result, do not distinguish the company from those who did not undergo acceleration, this is an additional factor that the company should think about and understand what impact it will have in the long term.

I was also able to establish that companies whose CEOs have a top education, MBA program, studied at a tier-1 university (Ivy League or Stanford) also do not have a higher valuation compared to other companies in the sample. This may lead to the idea that

education in entrepreneurship has a much smaller role than previous experience. It is the experience of the founders that VC funds value, rarely looking at the university or the level of education. Therefore, this fact can be useful for potential MBA students. If, after graduating from the program, you are planning to create your own company, perhaps an MBA is not the best investment.

Another factor that does not affect valuation is revenue. There are already many materials on this topic, but my model clearly shows once again that under the influence of other financial factors (investment volume, round size), revenue does not at all correlate with the company's valuation. Companies are no longer judged by how much money they make today. They are measured according to their growth prospects. And this growth is measured with the speed and volume of attracting new financial rounds.

A factor that positively affects the value of a company is its geographic location. Here I confirmed the stereotype that startups from California are more expensive than those from other states. Indeed, the variables are positively correlated. That being said, location in California does not affect revenue. So, based on the previous point, the companies that operate in the state of California are considered more promising in the future than the rest. This information is also useful for founders who are looking for an answer to the question of whether it is worth relocating to California (this will entail large expenses, primarily on salaries, office rent and the cost of living, and in the long term, on the amount of taxes). Obviously, work in California in the future can yield results in the form of a higher valuation.

The results of my work can be used by startups themselves. Founders can rely on this research when deciding whether to participate in an accelerator, geographically registering a company, and even deciding on their own MBA program.

In the future, this work can be expanded and provide more in-depth answers about the reasons for this or that influence. For example, having more investors in a startup

has a positive effect on valuation. In order to understand the reason for this (whether it is connected with a large number of rounds or with a large network and a large number of stakeholders), it is necessary to divide startups into groups by the number of financial rounds, as well as by the equal age of the companies. By examining these groups, you can establish the true causes of each factor.

Also, horizontal expansion of parameters is possible, for example, to compare the success of graduates of specific universities. This requires a much wider dataset, which will include separate universities and the entire C-level employees of the startup.

Overall, the results of the study have already shown quite interesting results, for example, there is no correlation between the MBA diploma of the founder and the future valuation of his company. However, it is also interesting to check the connection between education and the specifics of the company and its field of activity. In some industries, the basic education of founders must be specialized, otherwise it threatens both insufficient delving into the essence of what is happening in the company and obvious distrust on the part of potential investors.

These areas include, for example, Biotech or HealthTech. Quite often, among the co-founders and in the top management of the company there are specialists who have sufficient expertise in the field of business and understand the technology being introduced. A hypothesis in such industries may be that the presence of specialists with specialized education among the top management will increase the likelihood of a company's success.

The opposite situation can be, for example, the FinTech industry, in which many successful companies are run by CEOs with a business or technical background. Here, a specialized education in the field of finance does not seem so necessary.

Accordingly, a continuation of my scientific work can be a study of the relationship between the education received by the top management of companies and the success of companies in different industries. Identification of those industries that are more sensitive to this factor, and which are less sensitive. This will show which industries are more closed today and the entry into which requires a certain background and specific experience.

To carry out such work, it is necessary to allocate separate dates for each industry, as well as collect information not only on the CEO, but also on other top management, since in this case, the CEO does not have to possess specialized expertise. Such a research may become a logical continuation of the work was done in the master thesis.

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