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EVALUATING TECHNOLOGY BASED START-UPS FOR POTENTIAL UNICORNS

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ABSTRACT

Start-ups represent one of the most uncertain investment opportunities for venture capitalists due to their high failure rate. However, the few successful start-ups generate exponential returns and may eventually achieve unicorn status with valuations exceeding one billion dollars. This study proposes a structured financial model to evaluate technology-based start-ups for their potential to become unicorns. The model integrates four key determinants of start-up success: product scalability, entrepreneurial team capability, industry market potential, and venture capital funding capability. Using the Poisson cumulative probability distribution, the study estimates the likelihood of each determinant contributing to the start-up's growth trajectory over time. The proposed framework provides a quantitative approach for evaluating early-stage ventures and estimating their potential valuation outcomes. The model can assist venture capitalists, private equity investors, and entrepreneurs in assessing the long-term viability and scalability of technology-based start-ups.

KEYWORDS: Venture Capital; Unicorn Firms; Start-up Valuation; Poisson Distribution; Entrepreneurial Ecosystem JEL Codes: G24, L26, C63

1. INTRODUCTION

The ecosystem of start-ups includes product, team, industry and the venture capitalist. The start-ups can merely be an idea of creating a revolutionary product that will bring revolutionary changes to the industry in which the product will be sold. This idea can be conceptualized and transformed into a product by the team of entrepreneurs who run the start- up with the help of venture capitalists who not only infuses the equity capital in the idea/start- up, but also contributes by providing strategic advice for the growth of start-up. A start-up is well defined as a company that has the potential to become unicorn i.e. billion dollar valuation.

There have been many studies around the globe with regard to selection of investment in start-ups by venture capitalists. The Harvard Business School professor named Roberts and Barley (1) interviewed four of the finest venture capitalists in the USA so as to understand the start-up evaluation process for potential capital investment. It was found that the venture capitalist named Siegelman evaluated the deal by first and foremost looking at the industry for the product. If the industry for the product had market share large enough to take revenue of the start-up between $100 million to $300 million within five years then potential investment interested him. This revenue realization was subject to market share captured worth five percent by the start-up. The capturing of five percent share of total market share suggests that the total market for the product should be between $400 million to $1200 million within five years. The second aspect that Siegelman looked at for investment was the competitive edge that a start-up can have for five good years. The competitive edge could be created by taking up the challenge of engineering the product so that it's very hard for the competitors to follow and build a similar product in the near future. The third aspect that Siegelman considered before making an investment was the entrepreneur's background and ability to build engineering marvels and run sales divisions.

Roberts and Lauren (2) stated that another venture capitalist Hoel evaluated the deal by analysing the total market share, growth rate of market share, adaptability of customers and competitive edge as first and foremost criteria for potential investment in a start-up. Nevertheless, the team of a start-up is not rigorously evaluated because the venture capitalist believes that such gaps can be filled in by hiring the right team members to run the start-up. To endorse the competitive edge the focus is on finding potential start-ups which have already developed products and have patents for similar products. As per the discerning eye of venture capitalist Hoel it can be stated that the product's technology need not be revolutionary in nature. But for potential investment the product should be fully developed and patents should have been attained before the investment capital is infused. Roberts and Lauren (2) stated that another venture capitalist named Wang assessed the deal by scrutinizing two parameters and these parameters include the team management of the start-up and the sector of the start-up. The first parameter is crucial because over time venture capitalists have observed that it's very difficult to work in sync with start-ups that are driven by technologists as these technologists don't prove to be good entrepreneurs. Also the second parameter, that is, the sector of the start-up suggests that mostly investment in high growth sectors lifts all the companies over time and this makes start-up investments in lucrative sectors even more fruitful. Roberts and Lauren (2) stated that another venture capitalist named Simon calculated his interest in the start-up from the point of view of whether the start-up's product will replace current products available in the market or if the product was new and would revolutionize a particular industry or sector. Therefore, if the product is a replacement then the venture capitalist has more conviction in choosing a potential investment as relatively easier to determine the market share of such a product. In case the product is new then its market share is unknown and this makes the investment risky. Also for such revolutionary products it's very important for a start-up to time the market so that the customers can adapt to the launch of the new technology and this very timing issue makes the potential investment in start-up even more risky.

Research Objectives:

1. To identify the financial and market determinants those significantly influence the likelihood of a start-up achieving unicorn status.
2. To develop a predictive model that estimates the probability of a start-up achieving a valuation exceeding $1 billion.

2 LITERATURE REVIEW

2.1 Start-up Ecosystems and Unicorn Growth

The literature review delineates what kind of research had been carried out in the recent past related to the success of the start-ups and also the models that were proposed by the academicians for the evaluation of start-ups as potential unicorns. Venancio et.al. (2) study the impact of digital ecosystem in triggering the growth of start-up in

attaining unicorn status. The study concluded that infrastructure, resources and institutions have greater impact than digital trust in start-ups attaining unicorn status. Jha et.al. (2) studied the impact of ambidextrous nature of promoters on success of unicorns. The total of 196 interviews across 72 companies was conducted and it was concluded that ambidextrous nature of promoters does contribute immensely to success of start-up. Mester and Gavrilut (4) studied the impact of field of activity on growth and survival of new business. The study concluded that there is strong correlation between date of establishment of start-up and valuation of start-up. The study also concluded strong correlation between field of activity and valuation. Kotha (5) studied the temporal dynamics of unicorns so as to determine the variation of speed at which these unicorns become billion dollar valuation. The study concluded that founder and venture characteristics as well as investment and industry characteristics play crucial role in determining the speed of journey of start-up towards unicorn. Bethlendi (6) studied the reason behind increasing number of start-ups by studying the sectoral and geographical factors. The study concluded that increasing number of unicorns is directly related to ecosystem of economy and economic size of economy.

2.2. Entrepreneurial Capabilities and Innovation

Rizvanović (7) studied the impact of digital marketing on growth of start-ups. The study concluded that digital market has very high influence on team, market and product of start- up. Ivanov et.al. (8) studied the already achieved unicorn status companies so as to understand the prospect and trends of those start-ups which have become unicorns. The study revealed that those start-ups which are driven by technology and innovation are the ones achieving unicorn status. Rasool et.al. (9) worked on designing a mixed approach model which uses human intelligence as well as machine learning artificial intelligence for prediction of future of start-ups success under several different conditions.

2.3 Venture Capital Evaluation and Investment Criteria

The literature by Chang (10) studied the influence of strategic alliances and venture capital investment on the growth of start-ups. The study revealed that three factors largely influenced the growth of start-ups and these factors include the more capital a start-up raised, the number of alliances a start-up had, and the reputation of participating strategic alliance partners and venture capitalists. Thereafter, Krishna et.al. (11) also proposed a model evaluating the factors that led to the feats of the start-ups. The proposed model included parameters like seed funding, seed funding time, and series 'A' funding and the model was built using data mining techniques like Bayesian Network, Random Forest and AD Tress. Further, Kofanov & Zozulov (12) claimed that there are three major factors that contribute to the success of a start-up: start activity, external activity, and internal activity. Based on these three factors a model was created to evaluate the level of success in start-ups.

Another study by Okrah et.al. (13) enhanced our understanding with regard to start- ups in developed countries. It showcased that the government policies, internal market openness, market dynamics, and turnover play a crucial role in growth and success of start- ups in these nations. Encounting the success of any start-up based on the relationship between prototype practices and perceived complication in start-up tasks was initiated by Nelson et.al. (14). They used the technique named K-cluster analyses after the grouping analysis of thirty four start-ups to examine on the basis of prototype and complexity of tasks. The groups were formed based on funding amount, best practices in prototyping, and complexity of the start-up tasks. The study revealed that successful start-ups were those that had larger amounts of funding with minimal complications in performing tasks, and were also following best practices in prototyping. Block et.al. (15) carried out a comprehensive research that studied the investment selection criteria followed by the angel venture capitalists, venture capitalists, family offices, growth funds and leveraged buyout funds. For the purpose of study 729 such venture capitalists were chosen and it identified that growth rate in revenue was first and foremost investment criteria followed by value addition of product/service, track record of management team and profitability. A significant attribute that this research brought to light was that growth funds, leveraged buyout funds, and family offices gave priority to profitability, whereas business angels and venture capital funds don't. Rather, the venture capital funds focussed more on the growth rate of revenue, current venture capitalists associated and the business model of the Investee Company. Networking done by the entrepreneurs that led to the boom of entrepreneurial start- ups was looked into by Albourini et.al (16). For the purpose of analysis six

independent variables including taking part in community activities, cultivating internal contacts, getting involved in professional activities, raising one's profile within the company, socialization, and cultivating external contacts were taken along with the dependent variable of entrepreneurial start-ups. This publication concluded that these six independent variables have a huge influence on the success of the start-ups. In the same year Gaule (17) took another perspective and investigated how patent protection affects the success of entrepreneurial ventures. The study included 1,950 start-ups that were based out of the USA and raised their first round of capital two years before filing for patent protection. The study established that there was a huge impact of patent's protection on the success of the start-ups and this was more evident in relation to the start-ups and inventions that were from the area of life sciences. Kawińska and Zalewski in (18) highlighted the status of the European start-ups as it researched the critical factors that contributed to the success of start-ups in that geographical zone. The study had undertaken a component method of analysis using data on start-ups from the European states. The findings of this research suggested that the informal institutions, formal institutions, and the human capital contributed to the success of the start-ups in some European countries in comparison to the other countries. The reason behind this is that some countries have better formal institutions and better trained human work force which eventually triggers the success of these start-ups. Considering the impact of board member's presence on social media and composition of the board on the success of start-ups Gloor et.al. (19) came up with a study in 2020. For the purpose of perusal five hundred technology based start-up companies were shortlisted. The study revealed that start-ups with no backing from venture capitalists and board members on social media attracted more funding but it did not contribute to the growth in their additional revenue. The study also specified that start-ups with no backing from venture capitalists and no board members on social media were far more efficient in generating additional revenues. A contemporary research on sustainability was carried out by Jeong (20) et.al. in 2020. This research assessed the significance of investment done by venture capitalists on performance and sustainable growth of start-ups. The study had taken a sample of 323 start-ups in order to understand the relationship of venture capital infusion at each stage of growth that further influenced performance and sustainable growth of the start-up. The study concluded that venture capital investment at the initial stage of growth helps in better performance and sustainable growth.

A recent study by Singh (21) considered 93 start-ups in Bengaluru, India in order to determine the factors that contribute to the decision of sourcing of venture capital for the start-ups in their life cycle. The study projected that during the initial years of the life cycle the start-ups raise seed capital and the start-up capital is largely contributed through the angel venture capitalists. Whereas once the start-ups move up in their lifecycle and reach growth stage, the capital is largely raised through the venture capitalists and the private equity venture capitalists. The study also brought to light that out of the three different capitals including human capital, social capital and research capital, the social capital and human capital are largely funded by venture capitalists and research capital is largely funded by angel venture capitalists and corporate venture capitalists. The available literature regarding evaluation of the start-ups for potential unicorns was scanty and the majority of research was conducted on evaluating the key success factors that contributed to the growth of start-ups. Moreover, some part of literature on start-ups focussed on qualities and action of entrepreneurs that triggered the growth of start-ups. But, the literature failed to cover the evaluation of the start-ups for potential unicorns ($ billion valuation). Thus, this research paper would cover this very gap by proposing a theory, as well as, a model to evaluate start-up's ability to become unicorns.

Research Gap

Despite the increasing number of unicorn start-ups globally, limited academic research has focused on developing quantitative models for evaluating early-stage ventures with unicorn potential. Most existing studies emphasize success factors or entrepreneurial characteristics rather than predictive evaluation frameworks. Also, the previous studies have looked upon start-ups success from entrepreneurial point of view. Moreover, few studies have evaluated the investment criteria of venture capitalist in start-ups. The very idea of evaluating the potential of start-up to become unicorn using quantitative model still remains untouched. Therefore, there remains a significant gap in developing structured financial model that can systematically estimate the probability of start-ups reaching billion-dollar valuations i.e unicorn status.

3 METHODOLOGIES

The proposed structured finance theory of evaluation of start-ups for being potential unicorns includes conceptual framework, as well as, a financial model. The theory proposes that there are four variables that influence the growth in addition to the success of the start-up. The four variables include product scalability from pre-revenue to post revenue, team's entrepreneurial experience to take start-up to unicorn, the start-up's ability to capture five percent market share and venture capitalists strategic guidance together with their ability to rise funding throughout the journey of building a unicorn (figure 1).

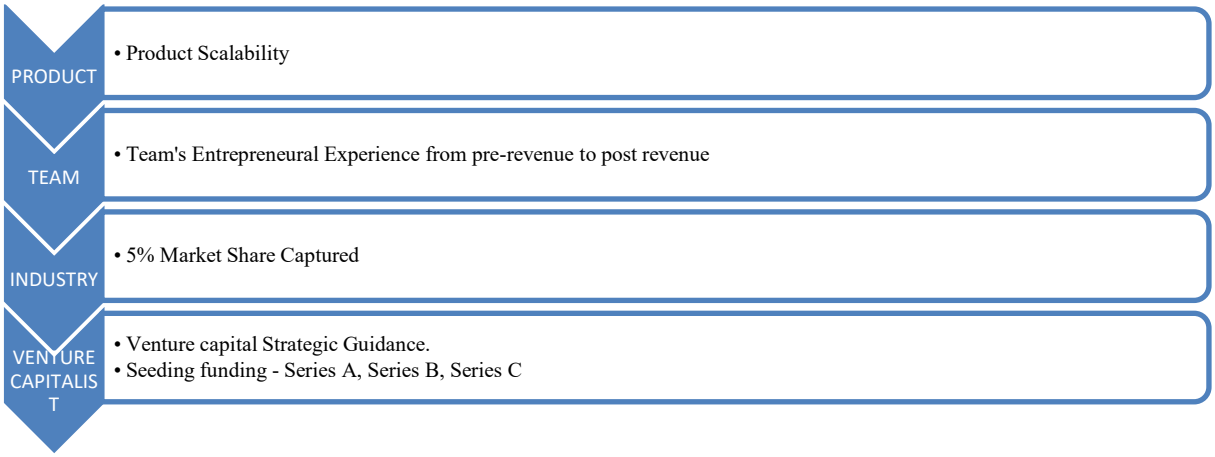

Figure 1 Start-up Evaluation

For the purpose of the evaluation of start-ups to be considered as potential unicorns the proposed model uses Poisson distribution to perform valuation. The very reason to use Poisson distribution in valuation is because of the two reasons. The first reason is the ability of Poisson distribution to successfully estimate the likelihood of an event occurring during a particular time frame. The second reason being the fact that all the four variables used in determining the success of start-ups are discrete in nature. Also, start-ups are very high risk investments and so probability of an event occurring over the investment holding period is quite variable. The higher the variability in occurrence of an event the greater is the accuracy of using Poisson distribution. Using the Poisson's Cumulative Probability Distribution, the model calculates the probability of occurrence of each of the variables separately. The average time in which the event should occur is different for each of the variables because for some variables events should occur earlier than for others. Cumulative Probability of event happening, $P(X \leq n) = \sum_{k=0}^{n} \frac{e^{-\lambda}\lambda^{k}}{k!}$ (1)

n……..anticipated time
λ…….. is the average time in which event will occur.
k…….is anticipated time

Maximum dollar value contributed by a variable = weight of variable × maximum value that can be attained by start-up (2)
Total dollar value contributed by variable = Maximum dollar value contributed by variable × cumulative probability of event happening (3)

4 ANALYSES

The four variables which the proposed model analyses include five percent market share captured, product scalability from pre-revenue to post-revenue, team's entrepreneurial experience and technical skills and strategic capability of venture capitalist. The ability of each of the variables to contribute to start-ups' journey is a process of subevents which contribute to a larger event of occurrence whereby the start-up becomes a unicorn. The weights are assigned to each of the variables when evaluating a start-up for being potential unicorn depending upon the contribution of each of the variables in growth of start-ups. For start-ups the weight of these variables will be different for different start-ups. The sum total of the weights given to the variables should be equal to one and should not be less than or greater than one.

$$\alpha + \beta + \gamma + \mu = 1 \quad (4)$$

α = weight given to variable named "5% market shared captured"
β = weight given to variable named "Product scalability from pre-revenue to post-revenue.
γ = weight given to variable named "Team's

entrepreneurial experience"
μ = weight given to variable named "Venture capitalists strategic guidance and fund raising ability"
The start-up evaluation model assumes that the maximum valuation that a start-up can attain at the end of investment holding period is $1.5 billion. Based on the weights assigned to each of the variables and maximum value a start-up can attain, we calculate the maximum dollar value contributed by each of the variables (equations 5, 6, 7, and 8).
Maximum value that a start-up can attain in investment holding period ($ millions) = 1,500.00
Maximum dollar value contributed by a variable named "5% market shared captured" = α × 1500 (5)
Maximum dollar value contributed by variable named "Product scalability from pre-revenue to post-revenue." = β × 1500 (6)
Maximum dollar value contributed by variable named "Team's entrepreneurial experience"= γ × 1500 (7)
Maximum dollar value contributed by variable named "Venture capitalists strategic guidance and fund raising ability" = μ × 1500(8)
The average time for gaining five percent market share is between eight and ten years. The anticipated time is the time in which the start-up believes it can actually gain the five percent market share and this anticipated time can be greater than or less than the average time taken to attain five percent market share. If anticipated time to capture five percent share is greater than twelve years then value of zero should be given to total dollar value contributed by said variable.
The average time for product scalability from pre-revenue to post-revenue is between four to five years. The anticipated time is the time in which the start-up believes it can actually do product scalability from pre-revenue to post-revenue and this anticipated time can be greater than or less than the average time taken to scale product from pre-revenue to post- revenue. If anticipated scalability time is greater than five years then value of zero should be given to said variable. The average time for a team's entrepreneurial experience to build the prototype and eventually a final product should be between three and five years. The anticipated time is the time in which the start-up's team believes it can actually take start-up to build prototype and eventually final product can be greater than or less than the average time taken. If anticipated team experience time is greater than five years then value of zero should be given to said variable.
The average time period in which all the outcomes of strategic decisions and all levels of funding raising can be completed, so that a start-up can become a unicorn is between seven to ten years. The anticipated time period is the time in which all the developments of strategic decisions and all levels of fundraising can be completed and this anticipated time period can be greater than or less than the average time taken for the accomplishment of all the outcomes of strategic decisions and all the levels of fundraising. If anticipated time for funding of all rounds is greater than twelve years then value of zero should be given to said variable. The calculation of Cumulative Poisson Probability Distribution for each of the variables is as follows (equations 9, 10, 11 and 12): Probability of gaining 5% market share in average time = $P(X \leq n) = \sum_{k=0}^{n} \frac{e^{-\lambda}\lambda^{k}}{k!}$ (9) n……anticipated time in which 5% market share will be captured $8 \leq \lambda \leq 10$ years …….. λ is the average time in which 5% market share should be captured and should be greater than equal to 8 years and less than equal to 10. If anticipated time is greater than 12 years then give zero value to this variable.
Probability of Product scalability from pre-revenue to post-revenue = $P(X \leq n) = \sum_{k=0}^{n} \frac{e^{-\lambda}\lambda^{k}}{k!}$ (10)
n……anticipated time in which Product scalability from pre-revenue to post-revenue
$4 \leq \lambda \leq 5$ years …….. λ is the average time in which Product scalability from pre- revenue to post-revenue should be greater than equal to 4 years and less than equal to 5 years. If anticipated time is greater than seven years then give zero value to this variable.
Probability of Team's entrepreneurial experience= $P(X \leq n) = \sum_{k=0}^{n} \frac{e^{-\lambda}\lambda^{k}}{k!}$ (11)
n …… anticipated time in which Team's entrepreneurial experience can convert start-up into unicorn.
$3 \leq \lambda \leq 5$ ……..λ is the average time in which Team's entrepreneurial experience should be able to build prototype and eventually final product is greater than equal to 3 years and less than equal to 5 years. If anticipated time is greater than five years then give zero value to this variable.
Probability of Venture capitalists strategic guidance and fundraising = $P(X \leq n) = \sum_{k=0}^{n} \frac{e^{-\lambda}\lambda^{k}}{k!}$ (12) n …… anticipated time in which Venture capitalists' strategic guidance and fund raising can convert start-up into unicorn.
$8 \leq \lambda \leq 10$ λ……. is the average time in which Venture capitalists strategic guidance and fund raising should be greater than equal to 8 years and less than equal to 10 years. If anticipated time is greater than twelve years then give zero value to this variable.

The total amount of value given to each of the variables is determined by multiplying the maximum value contributed by the variable with Cumulative Probability Distribution that the event will occur (see equations 13, 14, 15 and 16).

Total dollar value contributed by variable named "5% market shared captured" = Maximum dollar value contributed by variable named "5% market shared captured" × Probability of gaining 5% market share in average time (13)

Total dollar value contributed by variable named "Product scalability from pre-revenue to post-revenue." = Maximum dollar value contributed by variable named "Product scalability from pre-revenue to post-revenue" × Probability of Product scalability from pre-revenue to post-revenue(14)

Total dollar value contributed by variable named "Team's entrepreneurial experience" = Maximum dollar value contributed by variable named "Team's entrepreneurial experience" × Probability of Team's entrepreneurial experience (15)

Total dollar value contributed by variable named "Venture capitalists strategic guidance and fund raising ability" = Maximum dollar value contributed by variable named "Venture capitalists strategic guidance and fund raising ability" × Probability of Venture capitalists strategic guidance and fund raising (16)

Total value of start-up = Total dollar value contributed by variable named "5% market share captured + Total dollar value contributed by variable named "Product scalability from pre- revenue to post-revenue + Total dollar value contributed by variable named "Team's entrepreneurial experience + Total dollar value contributed by variable named "Venture capitalists strategic guidance and fund raising ability (17)

The example of the financial model for the purpose of evaluation of start-up to be considered as a potential unicorn is shown in table 1.

Table 1 Unicorn Analysis

Variable	Avg Time	Expected Time	Probability	Weight	Max Value ($M)	Value Contribution
Market Share Capture	8–10	12	0.973	0.25	375	0
Product Scalability	4–5	4	0.815	0.25	375	306
Team Experience	3–5	7	0.949	0.25	375	0
VC Strategic Support	8–10	10	0.901	0.25	375	338

5 CONCLUSION

Key findings: The venture capital investment in a start-up can give exponential returns and these start-ups can become billion dollar businesses in a short span of time of five to seven years. But the majority of start-ups fail and only one out of four become successful. With such a low rate of success it becomes even more important to analyze the start-ups for their respective potential to become successful ventures.

Practical implications: The unique contribution of this research paper is to help venture capitalists and entrepreneurs evaluate the start-ups for their respective potential to become unicorns in future. The proposed structured finance model provides a quantitative framework for evaluating the probability of technology-based start-ups achieving unicorn valuation. The proposed theory and financial model can be used by entrepreneurs, venture capitalists and venture capitalists so as to determine whether the start-up has the potential to become a unicorn or not. To the best of my knowledge and literature search there is no model and/or theory which evaluate the start-up's ability to become unicorn.

Limitations: The limitations of study include the unavailability of data sets of start-ups which can be inculcated in the proposed model to study those companies which have become unicorn in the past.

Future research: The future research can be carried out by taking historical data of those start-ups that have gone on to become unicorns so as to back test the model. Such back testing can be done across countries and continents so as to come consensus regarding viability of proposed model. The proposed model can be further dissected by digging down in to each variable. The team's entrepreneurial experience can be evaluated by furthering a scoring model so as to deeply evaluate the required experience. The venture capital fund raising can be also be further dissected to evaluate impact of each round of funding as well as amount of funding in each round. The product scalability can be deeply studied by using decision tree model as to understand the journey of idea to prototype and eventually final product. There are many methods to determine the market of product (top-down approach, bottom-up approach, value theory approach, competitors analysis, industry benchmarks and ratios, demand forecasting models, total market potential, market survey and interviews and geographical and demographic Analysis) and different methods may be applied in different scenarios depending upon nature of start- up to determine the most effective method to determine market for the particular product.

REFERENCES

1. Roberts MJ, Barley L. How venture capitalists evaluate potential venture opportunities. Boston (MA): President and Fellows of Harvard College; 2004.
2. Venâncio A, Picoto W, Pinto I. Time-to-unicorn and digital entrepreneurial ecosystems. Technol Forecast Soc Change. 2023;190:122425.
3. Jha VK, Roshan R, Sinha S. The role of founders' ambidextrous orientation in unicorn valuation: A study of Indian start-ups. Acad Manag Proc. 2023;2023(1):13303.
4. Mester I, Gavrilut D. The secrets of unicorn companies: An empirical investigation. Ann Univ Oradea Econ Sci Ser. 2023;32(1):205-18.
5. Kotha S, Shin SJ, Fisher G. Time to unicorn status: An exploratory examination of new ventures with extreme valuations. Strateg Entrep J. 2022;16(3):460-90.
6. Bethlendi A, Szőcs Á. Geographical and sectoral overview of the most valuable start-ups: What factors have increased the number of unicorns globally? Inform Tars. 2022;22(4).
7. Rizvanović B, Zutshi A, Grilo A, Nodehi T. Linking the potentials of extended digital marketing impact and start-up growth: Developing a macro-dynamic framework of start-up growth drivers supported by digital marketing. Technol Forecast Soc Change. 2023;186:122128.
8. Ivanov AA, Kulakova EY, Magomedova GM. Trends and prospects of founding start-up unicorns. Vestn Plekhanov Russ Univ Econ. 2022;(1):180-7.
9. Abdul Rasool MD, Al Haque S, Khan O, Mohammed Muneebuddin Haqqani M. Expert machine learning algorithms to predict start-up unicorns. J Algebraic Stat. 2022;13(3):2385-90.
10. Chang SJ. Venture capital financing, strategic alliances, and the initial public offerings of internet startups. J Bus Ventur. 2004;19(5):721-41.
11. Krishna A, Agrawal A, Choudhary A. Predicting the outcome of startups: Less failure, more success. In: 2016 IEEE 16th International Conference on Data Mining Workshops (ICDMW). New York: IEEE; 2016. p. 798-805.
12. Kofanov O, Zozulov O. Successful development of startups as a global trend of innovative socio-economic transformations. Int Multidiscip J Soc Sci. 2018;7(2):191-217.
13. Okrah J, Nepp A, Agbozo E. Exploring the factors of startup success and growth. Bus Manag Rev. 2018;9(3):229-37.
14. Nelson J, Mahan T, McComb C, Menold J. The prototyping behaviors of startups: Exploring the relationship between prototyping behavior and the financial success of startups. In: Proceedings of the International Design Engineering Technical Conferences and Computers and Information in Engineering Conference. New York: American Society of Mechanical Engineers; 2019. p. V007T06A025.
15. Block J, Fisch C, Vismara S, Andres R. Private equity investment criteria: An experimental conjoint analysis of venture capital, business angels, and family offices. J Corp Finance. 2019;58:329-52.
16. Albourini F, Ahmad A, Abuhashesh M, Nusairat N. The effect of networking behaviors on the success of entrepreneurial startups. Manag Sci Lett. 2020;10(11):2521-32.
17. Gaule P. Patents and the success of venture-capital-backed startups: Using examiner assignment to estimate causal effects. J Ind Econ. 2018;66(2):350-76.
18. Skawińska E, Zalewski RI. Success factors of startups in the EU—A comparative study. Sustainability. 2020;12(19):8200.
19. Gloor PA, Colladon AF, Grippa F, Hadley BM, Woerner S. The impact of social media presence and board member composition on new venture success: Evidence from VC-backed US startups. Technol Forecast Soc Change. 2020;157:120098.
20. Jeong J, Kim J, Son H, Nam DI. The role of venture capital investment in startups' sustainable growth and performance: Focusing on absorptive capacity and venture capitalists' reputation. Sustainability. 2020;12(8):3447.
21. Singh S, Mungila Hillemane BS. Sources of finance for tech startups over its lifecycle: What determines their approach of sources and its success? Int J Emerg Mark. 2023;18(8):1766-87.