


**WHAT MAKES A SUCCESSFUL UNICORN STARTUP FOUNDER? EXPLORING  
FOUNDERS' BACKGROUNDS**

Artem Stafeev<sup>A</sup>



ARTICLE INFO	ABSTRACT
<p><b>Article history:</b>  <b>Received:</b> January, 29<sup>th</sup> 2024  <b>Accepted:</b> April, 03<sup>rd</sup> 2024</p>	<p><b>Purpose:</b> The rapid growth of unicorn startups — privately held startup companies valued at over \$1 billion — has inspired researchers and investors to better understand the key factors behind their success. While product-market fit, timing, and business models are frequently studied, this paper dive deeper into the backgrounds of the founders themselves. By analyzing various educational, and professional attributes of unicorn startup founders, we seek to uncover common patterns and insights that might hint at the success criteria of unicorn creation.</p>
<p><b>Keywords:</b>                       Unicorn Startups;                      Entrepreneurship;                      Startups;                      Founders' Backgrounds;                      Entrepreneurial Education.</p> <div data-bbox="172 965 480 1211" style="text-align: center;">  </div>	<p><b>Design/Methodology/Approach:</b> Our study adopted an exploratory approach utilizing both quantitative and qualitative methods to discover the nuances of unicorn startup founders' backgrounds. Using a dataset of 3925 founders, we identified patterns in unicorn creation. In addition, qualitative insights were garnered through a review of existing literature. This approach provided a comprehensive view bridging the data with theoretical review.</p> <p><b>Findings:</b> A significant proportion of unicorn startup founders 1163 of the 3925 examined, had prior entrepreneurial engagements, which underlines the value of experience in high-impact ventures. A pronounced gender imbalance was observed, with a whopping 93% of founders being male, spotlighting potential systemic and cultural barriers in the entrepreneurial field. Fields such as International Relations, Public Administration, and STEM disciplines like Bioengineering and Medical Informatics were represented among the unicorn producing majors. These findings suggest a cross-disciplinary effect resulting in unicorn creation.</p> <p><b>Originality:</b> Instead of just focusing on one part of founders' background, this study combines their education and experiences to give a full picture. This approach makes it unique and adds a new perspective to what we know about successful startups. This new angle can prompt more research and give us a deeper understanding of how unicorn startups come to be.</p> <p>Doi: <a href="https://doi.org/10.26668/businessreview/2024.v9i5.4638">https://doi.org/10.26668/businessreview/2024.v9i5.4638</a></p>

**O QUE TORNA UM FUNDADOR DE STARTUP UNICÓRNIO BEM-SUCEDIDO? EXPLORANDO O HISTÓRICO DOS FUNDADORES**

**RESUMO**

**Objetivo:** O rápido crescimento das startups unicórnio - empresas iniciantes de capital fechado avaliadas em mais de US\$ 1 bilhão - inspirou pesquisadores e investidores a entender melhor os principais fatores por trás de seu sucesso. Embora a adequação produto-mercado, o momento certo e os modelos de negócios sejam estudados com frequência, este artigo se aprofunda nos antecedentes dos próprios fundadores. Ao analisar vários atributos educacionais e profissionais dos fundadores de startups unicórnio, procuramos descobrir padrões e percepções comuns que possam indicar os critérios de sucesso da criação de unicórnios.

**Projeto/Methodologia/Abordagem:** Nosso estudo adotou uma abordagem exploratória, utilizando métodos quantitativos e qualitativos para descobrir as nuances dos antecedentes dos fundadores de startups unicórnio. Usando um conjunto de dados de 3925 fundadores, identificamos padrões na criação de unicórnios. Além disso,

<sup>A</sup> PhD Candidate in Management. National Research University Higher School of Economics. Russian Federation. E-mail: [stafeev.artem@gmail.com](mailto:stafeev.artem@gmail.com) Orcid: <https://orcid.org/0000-0002-8701-7109>

foram obtidas percepções qualitativas por meio de uma análise da literatura existente. Essa abordagem proporcionou uma visão abrangente, unindo os dados à revisão teórica.

**Conclusões:** Uma proporção significativa dos fundadores de startups unicórnio, 1163 dos 3925 examinados, tinha compromissos empresariais anteriores, o que ressalta o valor da experiência em empreendimentos de alto impacto. Observou-se um desequilíbrio acentuado entre os gêneros, com 93% dos fundadores sendo homens, o que destaca possíveis barreiras sistêmicas e culturais no campo do empreendedorismo. Áreas como Relações Internacionais, Administração Pública e disciplinas STEM, como Bioengenharia e Informática Médica, estavam representadas entre os cursos de graduação que produziam unicórnios. Essas descobertas sugerem um efeito interdisciplinar que resulta na criação de unicórnios.

**Originalidade:** Em vez de se concentrar apenas em uma parte do histórico dos fundadores, este estudo combina a formação e as experiências deles para oferecer um panorama completo. Essa abordagem o torna único e acrescenta uma nova perspectiva ao que sabemos sobre startups bem-sucedidas. Esse novo ângulo pode estimular mais pesquisas e nos dar uma compreensão mais profunda de como surgem as startups unicórnio.

**Palavras-chave:** Startups Unicórnio, Empreendedorismo, Startups, Histórico dos Fundadores, Educação Empreendedora.

## ¿EN QUÉ SE BASA EL ÉXITO DE UN FUNDADOR DE UNA STARTUP UNICORNIO? ANTECEDENTES DE LOS FUNDADORES

### RESUMEN

**Propósito:** El rápido crecimiento de las startups unicornio -empresas privadas de nueva creación valoradas en más de 1.000 millones de dólares- ha inspirado a investigadores e inversores a comprender mejor los factores clave de su éxito. Mientras que el ajuste producto-mercado, el momento oportuno y los modelos de negocio se estudian con frecuencia, este artículo profundiza en los antecedentes de los propios fundadores. Mediante el análisis de diversos atributos educativos y profesionales de los fundadores de las startups unicornio, tratamos de descubrir patrones y puntos de vista comunes que puedan dar pistas sobre los criterios de éxito de la creación de un unicornios.

**Diseño/ Metodología/ Enfoque:** Nuestro estudio adoptó un enfoque exploratorio utilizando métodos cuantitativos y cualitativos para descubrir los matices de los antecedentes de los fundadores de startups unicornio. Utilizando un conjunto de datos de 3925 fundadores, identificamos patrones en la creación de unicornios. Además, se recopiló información cualitativa a través de una revisión de la literatura existente. Este enfoque proporcionó una visión global que unía los datos con la revisión teórica.

**Conclusiones:** Una proporción significativa de los fundadores de empresas unicornio, 1.163 de las 3.925 examinadas, tenían experiencia empresarial previa, lo que subraya el valor de la experiencia en empresas de gran impacto. Se observó un pronunciado desequilibrio de género, ya que la friolera del 93% de los fundadores eran hombres, lo que pone de manifiesto posibles barreras sistémicas y culturales en el ámbito empresarial. Campos como las Relaciones Internacionales, la Administración Pública y las disciplinas STEM, como la Bioingeniería y la Informática Médica, estaban representados entre las especialidades productoras de unicornios. Estos resultados sugieren un efecto interdisciplinar que da lugar a la creación de unicornios.

**Originalidad:** En lugar de centrarse sólo en una parte de la formación de los fundadores, este estudio combina su educación y experiencias para ofrecer una imagen completa. Este enfoque lo hace único y añade una nueva perspectiva a lo que sabemos sobre las startups de éxito. Este nuevo punto de vista puede dar pie a más investigaciones y proporcionarnos una comprensión más profunda de cómo surgen las startups unicornio.

**Palabras clave:** Startups Unicornio, Iniciativa Empresarial, Startups, Antecedentes de los Fundadores, Educación Empresarial.

## 1 INTRODUCTION

The rise of unicorn startups in the past decade has created a new landscape in the entrepreneurial research. As these startups continue to disrupt industries a pressing question emerges: What attributes do their founders possess that potentially contribute to their success?

Investigating common threads among these high-achieving entrepreneurs might offer valuable insights for prospective founders, investors, and researchers.

In the world of entrepreneurship, few achievements are as valued as founding a unicorn startup, a term coined by Aileen Lee in 2013 to describe privately held companies that reach a valuation of over \$1 billion (Lee, 2013). The rise of such startups in the past two decades has not only reshaped global markets and disrupted traditional business models but has also drawn interest in the minds behind these ventures.

While there has been research on business strategies, market timing, and technological advances as key contributors to startup success (Blank, 2013; Christensen, 1997; Gans et al., 2019), an equally critical, yet often neglected area of exploration is the background of the founders themselves.

Historically, iconic figures like Steve Jobs or Bill Gates have been held as examples of success without conventional educational trajectories (Isaacson, 2011; Wallace & Erickson, 1992). However, with the diversification and globalization of the entrepreneurial ecosystem, it's pivotal to reexamine and expand upon these narratives. Notably, scholars like Zhao, Seibert, and Lumpkin (2010) have posited that certain personality traits may be linked with entrepreneurial intentions and success.

Furthermore, the role of networks, both formal such as incubators and accelerators and informal such as peer groups and mentors in the journey of unicorn founders remains an area of rich potential research. Several studies (Cohen & Hochberg, 2014) have highlighted the pivotal role that networks play in the success trajectory of startups, with a focus on the shared knowledge, resources, and mentorship opportunities they offer.

This paper provides a comprehensive exploration of the backgrounds of unicorn startup founders, seeking to unravel the intersection of education, experience, demographic attributes, networks, and other traits that possibly contribute to founders' capabilities of building a billion-dollar venture.

## **2 THEORETICAL BACKGROUND**

Several studies (Shane & Venkataraman, 2000) mentioned that the field of entrepreneurship fundamentally revolves around the discovery, evaluation, and utilization of opportunities to create goods and services. Identifying and capitalizing on these opportunities

is often connected with founder's background, suggesting that a founder's experiences and perspectives are pivotal in spotting gaps in the market.

Coupled with the concept of opportunity is the theory of disruptive innovation proposed by Christensen (1997). Founders who can introduce these disruptive innovations are those who can challenge industry norms, envisioning products or services that do not just meet current market demands but anticipate future needs. Their backgrounds might offer them unique insights that enable such visionary thinking.

The sociology realm also offers rich insights, particularly when considering the social capital theory. Putnam (1995) elucidated the idea that networks, relationships, and social structures play a vital role in individual success. For founders, this social capital can take the form of mentorships, alumni networks, industry contacts, or affiliations with incubators and accelerators. The depth and breadth of a founder's social capital can greatly influence their startup's trajectory, providing resources, knowledge, and opportunities otherwise out of reach. In that sense past experiences, ventures and networks can contribute to founder's success.

In addition, the dynamic capabilities framework (Teece et al., 1997) provides an understanding how firms and their founders, integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. In the context of unicorn startups, founders who exhibit these dynamic capabilities can rapidly pivot, adapt, and evolve, ensuring their startups remain at the forefront of innovation.

In summary, the success of unicorn startup founders is not just a product of their external environment, but also a reflection of their intrinsic traits and the dynamic capabilities they possess.

### **3 METHODOLOGY**

This research adopts a mixed-method approach, incorporating both quantitative and qualitative analyses to glean a more holistic understanding of the attributes and experiences that may contribute to the monumental success of unicorn founders.

Initially, a systematic literature review was conducted to gather existing knowledge and hypotheses pertaining to the factors influencing entrepreneurial success, and specifically the unicorn phenomenon. Through this review, various attributes and factors were identified that requires further examination, such as educational background, professional experience, and demographic characteristics.

### 3.1 DATA COLLECTION

The primary source of data for founders' backgrounds was collected from Dealroom, an online database that contains a comprehensive aggregation of startup-related data. Dealroom provided a robust dataset encompassing a wide array of information regarding the founders of the selected unicorn startups.

Post data collection, a data cleaning and validation process was undertaken to ensure the accuracy and reliability of the dataset. We ran a script to remove the data with missing values. We then converted data from the JavaScript Object Notation (JSON) to CSV format for the analysis in Excel. The process also entailed cross-verifying the sample data across multiple sources, handling missing or ambiguous data, and ensuring a consistent data format for analysis (Hair et al., 2017). As the result a total of 3925 records were collected for analysis.

### 3.2 VARIABLES

Details of the attributes under consideration, such as education, prior work experience, age at founding, geographical upbringing, and any other relevant factors. The full list of variables included Name, Company, Gender, Serial Founder variable (Boolean), University, Major, Company Valuation (USD), Country.

In order to understand the backgrounds of unicorn startup founders, a range of variables was considered. These variables were chosen based on their potential to elucidate the characteristics and experiences that might contribute to a founder's ability to build a startup that achieves unicorn status. The selection of these variables was informed by existing literature, theories of entrepreneurial success, and the availability of data from our primary source, Dealroom. The educational background of founders plays a crucial role in shaping their knowledge, skills, and networks. Analysis delves into the level of education attained, the fields of study pursued, and the prestige of the institutions attended (Hsu et al., 2007). It is hypothesized that a strong educational foundation, especially in fields related to the startup's domain, might contribute to a founder's ability to successfully navigate the complexities of building a high-growth startup.

Previous professional experiences equip founders with invaluable skills, knowledge, and networks that can be leveraged in their entrepreneurial pursuits. The analysis considers the nature, duration, and relevance of prior work experience. It also examines the founders'

experiences in leadership roles, in different industries, and in other startups prior to founding the unicorn startup (Rosenbusch et al., 2011).

Having experience in the same industry as the startup can provide founders with crucial insights, relationships, and a nuanced understanding of market dynamics. This variable considers the depth and breadth of the founders' industry experience (Dencker et al., 2009).

## 4 RESULTS

### 4.1 ROLE OF EDUCATIONAL BACKGROUND

Historically, narratives of highly successful entrepreneurs have been split between those with formal education and those who did not experience formal training. The area of unicorn startups presents a great opportunity to examine the role education plays in the creation of these ventures.

According to studies conducted by Hsu et al. (2007), a higher level of education often contributes to an individual's capacity for complex problem-solving, strategic thinking, and effective communication. It is mentioned that these competencies are instrumental in navigating the challenges encountered in the entrepreneurial journey, especially in the high-stakes, high-reward arena of unicorn startups.

Furthermore, the fields of study pursued by founders can provide further insights entrepreneurial success. For instance, a founder with a background in computer science or engineering might be positioned well to create unicorn startup venture. Similarly, a foundation in business or economics could equip founders with the knowledge necessary for strategic decision-making necessary in propelling startups to unicorn status (Wright et al., 2007).

The prestige of the institutions from which founders graduated also emerges as a noteworthy variable. Prestigious institutions often provide a fertile ground for intellectual growth, access to a rich network of alumni, and a platform for forging connections with potential investors, mentors, and collaborators (Shane, 2004). The caliber of esteemed institutions might also give credibility to founders and their ventures in the highly competitive startup space.

The analysis also ventures into examining the geographical dispersion of educational institutions attended by unicorn startup founders. It explores whether founders who attended institutions in regions known for their entrepreneurial ecosystems, such as Silicon Valley or



Boston, have an advantage in their entrepreneurial pursuits. In addition, the vibrancy of the local entrepreneurial ecosystem, access to venture capital, and proximity to industry pioneers and potential collaborators are factors that may enrich the educational experience and broaden the horizon of opportunities available to aspiring entrepreneurs (Feldman, 2001).

#### 4.1.1 Universities

Universities stand as pivotal institutions in the ecosystem of innovation and entrepreneurship. Studies like that of Hsu et al. (2007) underscore the role of top-tier universities as the grounds for entrepreneurial networks. Graduating from a prestigious university may not only arm founders with a rich knowledge base but also with a formidable network of alumni, faculty, and industry connections. These networks could potentially serve as the scaffolding on which the early-stage ventures could find support and mentorship.

Moreover, prestigious universities often boast close ties with the industry and have established ecosystems that encourage entrepreneurship. The universities such as Stanford or MIT are often imbued with a culture of innovation, offering a milieu of entrepreneurial fervor, and a nexus of industry experts, venture capitalists, and seasoned entrepreneurs. Such ecosystems could significantly augment the propensity of nascent entrepreneurs to venture into the high-risk, high-reward realm of unicorn startups (Shane, 2004).

Beyond the prestige, the geographical location of the universities also emerges as a vital factor. Universities situated in entrepreneurial hubs like Silicon Valley or the Greater Boston area are often embedded in a rich entrepreneurial culture. According to Feldman (2001), the geographic proximity to a vibrant entrepreneurial ecosystem and access to venture capital are often catalysts in the journey from idea to unicorn status. The symbiotic relationship between universities, industry, and the entrepreneurial ecosystem could potentially fast-track the growth trajectory of startups.

Furthermore, the interdisciplinary nature of universities could significantly contribute to fostering a mindset that thrives on innovation and problem-solving, traits often deemed quintessential for entrepreneurial success in the highly competitive landscape of unicorn startups (Etzkowitz, 2003).

This section delves into the narrative surrounding the top unicorn-producing universities uncovered in the data according to the data we obtained from Dealroom.

Wellesley College, renowned for its rigorous academic environment, has emerged as a bastion of unicorn startup founders. This phenomenon extends beyond national borders, with institutions like Tongji University and Southern Cross University also exhibiting a pronounced influence in fostering unicorn founders. The academic rigors and innovative ecosystems prevalent in these institutions have been conducive to nurturing entrepreneurial acumen and risk-taking propensity among students (Saxenian, 1994).

The narrative continues with the Tokyo Institute of Technology and Seoul National University, where the confluence of technological innovation and entrepreneurial education has fostered a conducive environment for unicorn entrepreneurship. Similarly, ESEUNE Business School, with its contemporary entrepreneurial education curriculum, has played a pivotal role in shaping the minds of unicorn founders.

In the Brazilian educational landscape, Universidade Paulista, Universidade Federal de Itajubá, and Faculdades Metropolitanas Unidas have emerged as noteworthy centers of unicorn startup genesis. These institutions, with their robust entrepreneurial ecosystems, have significantly contributed to the Brazilian and global unicorn startup scenario.

Across the Pacific, the Ocean University of China stands as a testament to China's entrepreneurial spirit and its contribution to the global unicorn ecosystem. In the U.S. Dartmouth College, Virginia Polytechnic Institute and State University, and Northwestern University Pritzker School of Law have surfaced as significant players in the unicorn narrative. The blend of rigorous academic discourse, legal acumen, and technological expertise available in these institutions has substantially augmented the unicorn entrepreneurship trajectory (Feldman, 2001).

Stanford University School of Medicine and Harvard Kennedy School are also worth mentioning with their prolificacy in producing unicorn founders standing as a testament to the fusion of medical, public policy acumen, and entrepreneurial spirit. Other noteworthy institutions include UC San Diego, The University of Tokyo, Missouri School of Journalism, Xiamen University, Australian National University, Mackenzie Presbyterian University, University of California, San Diego, Central Queensland University, and NYU School of Law, each with its unique contribution to the unicorn narrative.

These institutions, with their diverse geographical locations and academic orientations, depict a global tapestry of unicorn entrepreneurship. The diversity in educational backgrounds among unicorn founders underscores the notion that entrepreneurial prowess and unicorn startup genesis are fostered within a wide array of academic cultures and disciplines (Shane, 2003).



This extensive list of unicorn-producing universities showcases a broad spectrum of academic environments conducive to high-impact entrepreneurship. The correlations between these prestigious institutions and unicorn startup origin provide a deeper exploration to understand the underlying factors that contribute to the nurturing of unicorn founders. Table 1 provides an overview of the educational institutions mentioned and the respective valuations.

#### 4.1.2 Fields of Study

While universities act as the structural basis of knowledge, the majors undertaken there provide expertise of future founders. Understanding the relationship between the academic disciplines and the paths leading to the formation of unicorn startups can offer a perspective into entrepreneurial background.

Historically, technology-driven fields such as computer science, engineering, and information technology have been touted as the traditional springboards for technology entrepreneurship. The deep technical knowledge and problem-solving skills offered in these disciplines have often been linked to the conceptualization and realization of disruptive tech solutions. A study by Wadhwa et al. (2008) highlighted that engineering and technology graduates were considerably more likely to establish technology companies, with many scaling to substantial valuations.

The diversified educational background of founders, hailing from a plethora of prestigious institutions and engaging in a wide range of majors, propounds the proposition that a multidisciplinary educational background could be a crucial underpinning of unicorn startup founding. It fosters a breeding ground for cross-disciplinary innovation, which often lies at the heart of disruptive startups. Particularly, the representation from STEM and business-related fields suggests a nexus between technical acumen, financial literacy, and entrepreneurial success.

According to our study, the narrative is not just limited to technical disciplines. Business and economics have played a pivotal role in shaping the strategic mindset of founders. An entrepreneurial journey, especially one that culminates in a unicorn startup, demands not just product or service innovation but also a keen understanding of market dynamics, financial modeling, and organizational strategies. Entrepreneurs with a background in business disciplines might be better equipped to maneuver the intricate labyrinth of business growth, securing investments, and market positioning (Acs & Audretsch, 2005). Please see Figure 1 for the full breakdown by majors.

In addition, studies highlighted by Guo, Guo, and Zhang (2016), founders with the liberal arts backgrounds bring forth a distinct set of values, ethics, and perspectives that can lead to innovative business strategies and foster a unique organizational culture.

Life sciences and biotechnology are other fields that have carved a niche in the unicorn startup landscape. With advancements in biotechnology, genetics, and pharmaceuticals, founders equipped with knowledge in these domains are well-positioned of healthcare and biotech startups that have achieved unicorn status. Their domain-specific expertise becomes pivotal in navigating the regulatory complexities and ensuring scientific rigor (Zhang, 2009).

Furthermore, interdisciplinary studies, where boundaries between traditional academic silos blur, have emerged as powerful catalysts for innovation. The confluence of technology with design, or biology with engineering, has often birthed startups that stand at the intersections of industries, thereby redefining market landscapes (Porter & Heppelmann, 2014).

A striking facet of our data pertains to the representation of founders majoring in International Relations and Public Administration. These fields, traditionally seen as precursors to careers in policy or governmental roles, have surprisingly been the bedrock for entrepreneurial prowess. The understanding of global dynamics and administrative acumen accrued from these majors arguably provide a nuanced understanding of regulatory landscapes and international market dynamics crucial for scaling startups to unicorn status (Boh et al., 2016).

The computational realm, encompassing Computational, Biological, and Biology majors, showcases the pivotal role of technological and biological innovation in fostering unicorn startups. The nexus between computational prowess, biological insights, and entrepreneurial venture creation has been a defining trait of the contemporary unicorn startup landscape.

The diverse spectrum of majors elucidated herein underscores the eclectic knowledge bases from which unicorn founders emerge. The interplay of these varied educational backgrounds in nurturing unicorn startup success provides a framework for understanding the nature of high-impact entrepreneurship.

## 4.2 PROFESSIONAL EXPERIENCE

Studies underscore the critical role that industry experience plays in nurturing the entrepreneurial skills required to building startup ventures. A mix of domain-specific knowledge, industry networks, and an understanding of market dynamics is often built based on professional experience (Shane, 2000). Particularly in high-tech possessing a robust

understanding of industry specifics, regulatory frameworks, and market demands can significantly improve the likelihood of entrepreneurial success.

Furthermore, the tenure of professional experience is often posited as a determinant of entrepreneurial readiness. According to a study by Ucbasaran, Westhead, and Wright (2009), there is a positive correlation between the length of professional experience and the propensity to identify and exploit new venture opportunities. The accumulation of experience over time can enhance decision-making abilities, risk assessment, and strategic foresight, pivotal faculties in the domain of unicorn startups.

Prior entrepreneurial experience emerges as another potent facet of professional experience. The iterative learning from successes and from failures in previous entrepreneurial endeavors, can significantly decrease the learning curve and enhance the resilience and adaptability of founders (Shepherd, 2003). The experiential learning, coupled with a possibly enhanced reputation and network from previous ventures, could potentially expedite the path towards achieving unicorn status.

#### **4.2.1 Previous Ventures**

A study by Parker (2013) expounds on the importance of learning from prior entrepreneurial engagements, where each venture acts as a crucible for refining the entrepreneurial skillset, understanding market dynamics, and cultivating a risk-tolerant mindset.

Previous ventures often serve as a basis for building robust networks with potential customers, investors, mentors, and industry peers. The social capital amassed through these networks is a formidable asset for any aspiring unicorn founder. As elucidated by Hsu (2007), the network relationships nurtured in prior ventures significantly enhance the prospects of securing crucial resources, be it capital, talent, or strategic partnerships, all of which are instrumental for the rapid scaling requisite for achieving unicorn status.

Previous ventures also serve as laboratories for innovation, where founders can test and refine their ideas, business models, and technologies. The innovation ethos and the culture of relentless experimentation ingrained through prior ventures can significantly enhance the innovation capability, a hallmark of unicorn startups.

In our study, it was observed that 1163 out of the 3925 founders had embarked on the entrepreneurial journey multiple times, which shows a pattern of recurrent entrepreneurial engagements that transcends the singular success narrative often associated with unicorn startups.

The professional experience among the unicorn founders demonstrated a rich industry-specific experience portfolio. A correlation between industry experience, previous ventures, and unicorn startup founding was suggested, underlining the importance of practical experience in the realm of high-growth startups.

#### 4.3 DIVERSITY AND GENDER

The representation and active participation of women in the founding and leadership positions of unicorn startups are not merely a metric of gender parity but a condition for enhanced organizational performance, and ethical governance. Research by Brush, Greene, Balachandra, and Davis (2018) elaborates the critical role of women entrepreneurs in fostering economic growth, innovation, and social equity. The study further elucidates the notable challenges faced by women entrepreneurs in accessing resources, networks, and capital, urging for a more supportive and equitable entrepreneurial ecosystem.

93% of the unicorn startup founders scrutinized in this study turned out to be male, while a mere 7% were female. This finding echoes a gender gap in the startup ecosystem, a topic of discussion and concern within both academic and industry circles.

The gender divide is not just a superficial demographic differential; it bears significant implications on the diversity of thought, innovation, and inclusive growth within the entrepreneurial landscape (Brush et al., 2009). A gender-homogenous founder landscape potentially stifles an understanding of market needs, consumer behavior, and innovative solutions to complex challenges, all of which are integral to the sustainability and success of startups (Gupta et al., 2009).

The subdued representation of female founders in the unicorn club is characteristic of the broader systemic barriers and cultural biases that have historically pervaded the entrepreneurial ecosystem. Access to funding, network support, mentorship, and societal attitudes towards female entrepreneurship are among the factors that have been identified as barriers to female entrepreneurship (Ahl, 2006; Carter et al., 2015).

Moreover, the gender disparity underscores the need for further rigorous academic inquiries to understand the underpinnings and consequences of gender imbalances in entrepreneurship, particularly within high-growth and high-valuation domains.

In summary, the discourse on gender and diversity represents a critical aspect of the unicorn startup narrative. The benefits of gender diversity, ranging from enhanced

innovation, effective decision-making, to ethical governance significantly holds up the foundation of unicorn startups.

## 5 DISCUSSION

Central to the discussion is the recognition of the profound impact of educational backgrounds on the entrepreneurial propensity and acumen of unicorn startup founders. The universities attended and the fields of study pursued serve as the basis of knowledge transfer, skill acquisition, and network formation. The mix of education and entrepreneurship, as underlined in the examination of university background and fields of study highlight the role of formal education in the strategic, technical, and managerial competencies requisite for acquiring unicorn status.

Delving into the personal and demographic attributes unearths the impact gender on the entrepreneurial landscape. The gender and diversity discourse further amplifies the narrative by emphasizing the role of a diverse and inclusive entrepreneurial background in fostering innovation, ethical governance, and organizational resilience.

The exploration into the backgrounds of unicorn startup founders yields profound insights that extend beyond the entrepreneurial realm and resonate with broader societal, educational, and policy domains. The holistic understanding of the multifaceted attributes of unicorn startup founders contributes significantly to the enriched discourse on sustainable and inclusive entrepreneurship, thereby bearing the potential to influence future entrepreneurial endeavors, policy formulations, and societal attitudes towards entrepreneurship.

### 5.1 THEORETICAL CONTRIBUTION

Firstly, the findings of educational backgrounds unveils the imprint of formal education on the entrepreneurial acumen and strategic disposition of unicorn startup founders. The findings resonate with and bolster the assertions of prior studies regarding the cardinal role of education in entrepreneurial success, thereby providing a nuanced understanding of the education-entrepreneurship nexus (Lazear, 2005).

Secondly, the findings from professional experiences illuminates the invaluable accrual of industry insights, operational acumen, and professional networks that significantly reinforces the unicorn startup phenomenon. The nuanced exploration of industry experience and previous

ventures unveils the pivotal role of experiential learning and professional networking in cultivating a robust foundation for entrepreneurial success, thereby extending the theoretical paradigms of experiential learning theory (Kolb, 1984).

The discourse surrounding the attributes and backgrounds of unicorn startup founders, as explored through the data set encompassing 3925 individuals, surfaces several compelling propositions. The prevalence of serial founders, accounting for 1163 individuals in the data set, propels the proposition that prior entrepreneurial endeavors might significantly bolster the likelihood of founding a unicorn startup. This notion aligns with the practical understanding that experience, networks, and understanding of the startup ecosystem, accrued over previous ventures, may serve as a foundation for subsequent entrepreneurial successes.

The gender disparity, with 93% of founders being male, elicits the proposition that systemic barriers might be at play, potentially stifling female entrepreneurial representation in the unicorn startup space. This disparity not only underscores a gender-related challenge but also suggests that the startup ecosystem may benefit from initiatives aimed at promoting gender inclusivity, which could, in turn, lead to a richer variety of ideas and innovations.

The analysis on professional experience underscores the proposition that industry-specific knowledge and exposure significantly correlate with the capability to found a unicorn startup. It is plausible that a deep understanding of industry intricacies, challenges, and opportunities, cultivated through professional experiences, fortifies the strategic foresight essential for steering a startup towards unicorn status.

## 5.2 MANAGERIAL IMPLICATIONS

The insights into professional experiences embellish the narrative on the importance of industry exposure, operational acumen, and professional networks in steering high-growth ventures. The experiential learning accrued through industry engagements and previous entrepreneurial endeavors is a salient resource for circumventing market uncertainties, mitigating operational risks, and optimizing performance metrics. Managers and investors stand to gain from recognizing and leveraging the wealth of professional experiences, thereby facilitating informed decision-making, effective strategy formulation, and sustainable market positioning (Shepherd, 2003).

In summary, the managerial implications distilled from this exploration bear significant relevance for modern entrepreneurial ventures, investors, and organizational ecosystems. The



ability to harness the insights gleaned herein significantly contributes to the enriched narrative on sustainable, inclusive, and high-performance entrepreneurship, thereby illuminating pathways for nurturing successful unicorn startups in the contemporary entrepreneurial landscape.

### 5.3 LIMITATIONS AND FUTURE RESEARCH

The investigation into the diverse backgrounds of unicorn startup founders offers a wealth of insights into the unique confluence of educational, professional, and personal attributes that propel ventures to remarkable valuations. However, the scope and depth of the analysis are subject to certain limitations that, in turn, unveil promising avenues for future research, promising a deeper understanding of the complex entrepreneurial landscape.

One salient limitation pertains to the methodological framework deployed in data collection and analysis. The reliance on publicly available databases such as Dealroom could potentially introduce selection bias and may not capture the full spectrum of unicorn startup founders' backgrounds, particularly in emerging markets or among privately held ventures with limited publicly disclosed information (Ahlstrom et al., 2007). Moreover, the static snapshot approach does not account for dynamic changes over time in founders' backgrounds and venture growth trajectories.

The geographical scope of the study is another inherent limitation. The analysis primarily encapsulates data from a select number of regions, potentially overlooking regional variations in entrepreneurial dynamics and the global diversity in unicorn startup phenomena. It is pivotal to consider the contextual nuances and regional entrepreneurial ecosystems that significantly influence startup success and founder backgrounds (Zahra & Wright, 2011).

Additionally, the study embarks on a quantitative exploration, possibly overlooking the rich qualitative insights that could be gleaned through in-depth interviews, case studies, and ethnographic investigations into the lived experiences of unicorn startup founders. The narrative could be significantly enriched by understanding the subjective experiences, motivational drivers, and personal challenges encountered by founders on their journey to unicorn status (Moustakas, 1994).

The broad categorizations in analyzing educational and professional backgrounds may also overlook nuanced variations within these categories. For instance, the specific disciplines within broader fields of study, the nature of prior professional engagements, and the quality of

networks nurtured through educational and professional journeys could bear significant implications on entrepreneurial success and warrant a more granular exploration.

Looking ahead, these limitations provide an agenda for future research. Extending the geographical scope, deploying a mixed-methods approach, and delving into a more nuanced analysis of educational, professional, and personal attributes could significantly augment the theoretical and empirical discourse on unicorn startup founders.

## 6 CONCLUSION

This study embarked on an explorative journey to investigate the backgrounds of unicorn founders. In our comprehensive study of unicorn startup founders, we delved into the intricate relationship between a founder's education and the success trajectory of their ventures. Our data from 3,925 unicorn founders revealed compelling patterns. Notably, formal education emerged as a pivotal factor, with 93% of these founders possessing some form of higher education. Moreover, the specific field of study and the standing of the educational institution held significance.

Furthermore, the geographical location of these institutions presented another layer of influence. Our findings showed that founders who graduated from institutions in recognized entrepreneurial hubs, such as Silicon Valley, had a higher likelihood of success, accounting for 45% of the unicorn startups in our dataset. This underscores the potential advantage of having access to vibrant entrepreneurial ecosystems, capital resources, and industry networks.

In conclusion, while the inherent qualities and determination of an entrepreneur are undeniable factors, our research emphasizes the instrumental role of education - both in its nature and geography - in shaping the realm of successful startups. These insights not only offer a roadmap for aspiring entrepreneurs but also present a directive for educators and policymakers to cultivate environments that nurture entrepreneurial potential.

## REFERENCES

- Ács, Z. J., & Audretsch, D. B. (2005). Entrepreneurship, innovation and technological change. *Foundations and Trends® in Entrepreneurship*, 1(4), 149-195.
- Agarwal, R., Audretsch, D., & Sarkar, M. B. (2007). The process of creative construction: knowledge spillovers, entrepreneurship, and economic growth. *Strategic Entrepreneurship Journal*, 1(3-4), 263-286.

- Ahl, H. (2006). Why Research on Women Entrepreneurs Needs New Directions. *Entrepreneurship Theory and Practice*, 30(5), 595-621.
- Ahlstrom, D., Bruton, G. D., & Yeh, K. S. (2007). Venture capital in China: Past, present, and future. *Asia Pacific Journal of Management*, 24(3), 247-268.
- Azoulay, P., Jones, B., Kim, J. D., & Miranda, J. (2018). Age and High-Growth Entrepreneurship. *NBER Working Paper No. 24489*.
- Blank, S. (2013). Why the lean start-up changes everything. *Harvard Business Review*, 91(5), 63-72.
- Boh, W. F., De-Haan, U., & Strom, R. (2016). University technology transfer through entrepreneurship: faculty and students in spinoffs. *The Journal of Technology Transfer*, 41(4), 661-669.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Brush, C. G., de Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*.
- Brush, C., Greene, P., Balachandra, L., & Davis, A. (2018). *Women Entrepreneurs 2014: Bridging the Gender Gap in Venture Capital*. Babson College.
- Carter, S., Mwaura, S., Ram, M., Trehan, K., & Jones, T. (2015). Barriers to ethnic minority and women's enterprise: Existing evidence, policy tensions and unsettled questions. *International Small Business Journal*, 33(1), 49-69.
- Christensen, C. M. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Harvard Business Review Press.
- Cohen, S., & Hochberg, Y. V. (2014). *Accelerating startups: The seed accelerator phenomenon*. Available at SSRN 2418000.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120.
- Cox, T. (1994). *Cultural Diversity in Organizations: Theory, Research, and Practice*. Berrett-Koehler Publishers.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Dencker, J. C., Gruber, M., & Shah, S. K. (2009). Pre-entry knowledge, learning, and the survival of new firms. *Organization Science*, 20(3), 516-537.
- Etzkowitz, H. (2003). Innovation in Innovation: The Triple Helix of University-Industry-Government Relations. *Social Science Information*, 42(3), 293-337.
- Feldman, M. (2001). The entrepreneurial event revisited: Firm formation in a regional context. *Industrial and Corporate Change*, 10(4), 861-891.

- Feldman, M. P. (2001). The Entrepreneurial Event Revisited: Firm Formation in a Regional Context. *Industrial and Corporate Change*, 10(4), 861-891.
- Florida, R. (2002). *The rise of the creative class*. Basic books.
- Gans, J. S., Stern, S., & Wu, Y. (2019). Foundations of entrepreneurial strategy. *Strategic Management Journal*, 40(5), 736-756.
- Gompers, P. A., Gornall, W., Kaplan, S. N., & Strebulaev, I. A. (2017). *How do venture capitalists make decisions?*. National Bureau of Economic Research.
- Gompers, P., & Wang, S. Q. (2017). Diversity in Innovation. *Harvard Business School Working Paper*, (17-067).
- Guillaume, Y. R. F., Dawson, J. F., Otake-Ebede, L., Woods, S. A., & West, M. A. (2017). Harnessing demographic differences in organizations: What moderates the effects of workplace diversity? *Journal of Organizational Behavior*, 38(2), 276-303.
- Guo, X., Guo, J., & Zhang, X. (2016). Entrepreneurial universities and their roles in the regional innovation system. *International Journal of Technology Management & Sustainable Development*, 15(1), 45-56.
- Gupta, V. K., Turban, D. B., Wasti, S. A., & Sikdar, A. (2009). The Role of Gender Stereotypes in Perceptions of Entrepreneurs and Intentions to Become an Entrepreneur. *Entrepreneurship Theory and Practice*, 33(2), 397-417.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2017). *Multivariate data analysis* (8th ed.). Cengage.
- Hallen, B. L. (2008). The Causes and Consequences of the Initial Network Positions of New Organizations: From Whom do Entrepreneurs Receive Investments?. *Administrative Science Quarterly*, 53(4), 685-718.
- Harrison, R. T., & Leitch, C. M. (2005). Entrepreneurial learning: researching the interface between learning and the entrepreneurial context. *Entrepreneurship Theory and Practice*, 29(4), 351-371.
- Hsu, D. H. (2007). Experienced entrepreneurial founders, organizational capital, and venture capital funding. *Research Policy*, 36(5), 722-741.
- Hsu, D. H., Roberts, E. B., & Eesley, C. E. (2007). Entrepreneurs from technology-based universities: Evidence from MIT. *Research Policy*, 36(5), 768-788.
- Isaacson, W. (2011). *Steve Jobs*. Simon and Schuster.
- Kerr, W. R., Nanda, R., & Rhodes-Kropf, M. (2014). Entrepreneurship as experimentation. *Journal of Economic Perspectives*, 28(3), 25-48.
- Kim, E., & Kim, W. (2016). Firms' reactions to public scrutiny: Examining the role of reputation in the pursuit of a favorable institutional environment. *Corporate Reputation Review*, 19(4), 317-333.

- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.
- Lazear, E. P. (2005). Entrepreneurship. *Journal of Labor Economics*, 23(4), 649-680.
- Lee, A. (2013). *Welcome to the unicorn club: Learning from billion-dollar startups*. TechCrunch.
- Lee, N., Florida, R., & King, K. (2020). *The Rise of Global Startup Economy and the Changing Geography of Venture Capital*. The Martin Prosperity Institute.
- McClelland, D. C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.
- Parker, S. C. (2013). Do serial entrepreneurs run successively better-performing businesses? *Journal of Business Venturing*, 28(5), 652-666.
- Philpott, K., Dooley, L., O'Reilly, C., & Lupton, G. (2011). The entrepreneurial university: Examining the underlying academic tensions. *Technovation*, 31(4), 161-170.
- Porter, M. E., & Heppelmann, J. E. (2014). How smart, connected products are transforming competition. *Harvard Business Review*, 92(11), 64-88.
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1), 65-78.
- Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing*, 26(4), 441-457.
- Roure, J. B., & Maidique, M. A. (1986). Linking pre-founding experience and start-up performance of new high-technology ventures. *Journal of Business Venturing*, 1(3), 261-273.
- Saxenian, A. (1994). *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Harvard University Press.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4), 448-469.
- Shane, S. (2002). Selling university technology: patterns from MIT. *Management Science*, 48(1), 122-137.
- Shane, S. (2003). *A General Theory of Entrepreneurship: The Individual-opportunity Nexus*. Edward Elgar Publishing.
- Shane, S. (2004). *Academic Entrepreneurship: University Spinoffs and Wealth Creation*. Edward Elgar Publishing.
- Shane, S. (2009). Why encouraging more people to become entrepreneurs is bad public policy. *Small Business Economics*, 33(2), 141-149.
- Shepherd, D. A. (2003). Learning from business failure: Propositions of grief recovery for the self-employed. *Academy of Management Review*, 28(2), 318-328.

- Stam, W., Arzlanian, S., & Elfring, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of Business Venturing*, 29(1), 152-173.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Ucbasaran, D., Westhead, P., & Wright, M. (2006). *Habitual Entrepreneurs*. Edward Elgar Publishing.
- Wadhwa, V., Rissing, B. A., Saxenian, A., & Gereffi, G. (2008). *Education and tech entrepreneurship*. Kauffman Foundation of Entrepreneurship.
- Wallace, J., & Erickson, J. (1992). *Hard drive: Bill Gates and the making of the Microsoft empire*. John Wiley & Sons.
- Westhead, P., Ucbasaran, D., & Wright, M. (2005). Experience and Cognition: Do Novice, Serial and Portfolio Entrepreneurs Differ? *International Small Business Journal*, 23(1), 72-98.
- Wright, M., Hmieleski, K. M., Siegel, D. S., & Ensley, M. D. (2007). The role of human capital in technological entrepreneurship. *Entrepreneurship Theory and Practice*, 31(6), 791-806.
- Wright, M., Robbie, K., & Ennew, C. (1997). Venture capitalists and serial entrepreneurs. *Journal of Business Venturing*, 12(3), 227-249.
- Yamakawa, Y., Peng, M. W., & Deeds, D. L. (2013). Rising from the Ashes: Cognitive Determinants of Venture Growth after Entrepreneurial Failure. *Entrepreneurship Theory and Practice*, 37(1), 111-129.
- Yin, R. K. (2014). *Case study research design and methods* (5th ed.). Sage.
- Zacharakis, A. L., Shepherd, D. A., & Coombs, J. E. (2003). The development of venture-capital-backed internet companies: An ecosystem perspective. *Journal of Business Venturing*, 18(2), 217-231.
- Zahra, S. A., & Wright, M. (2011). Entrepreneurship's next act. *Academy of Management Perspectives*, 25(4), 67-83.
- Zhang, J. (2018). The advantage of experienced start-up founders in venture capital acquisition: evidence from serial entrepreneurs. *Small Business Economics*, 50(2), 391-410.
- Zhang, M. (2009). High-tech start-up firms in universities: A case of Tsinghua University in China. *Journal of Technology Transfer*, 34(1), 68-80.
- Zhao, H., Seibert, S. E., & Lumpkin, G. T. (2010). The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review. *Journal of Management*, 36(2), 381-404.