Unicorn Industry Trend Analysis

By Sohaib Hassan

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Objective

The primary objective of this project is to support an investment firm in identifying and analyzing trends among high-growth, high-valuation companies—commonly referred to as "unicorns." Specifically, the goal is to determine which industries are producing the highest valuations and how frequently new unicorns are emerging each year within those industries. This analysis is intended to provide actionable insights for shaping future investment strategies and portfolio decisions.

Dataset Overview

The dataset consists of four relational tables representing various aspects of unicorn companies. Each table is linked via a unique (**company_id**)

Table Name	Description
dates	Contains the companywide, the date a company became a unicorn (date_joined), and the year it was founded (year_founded).

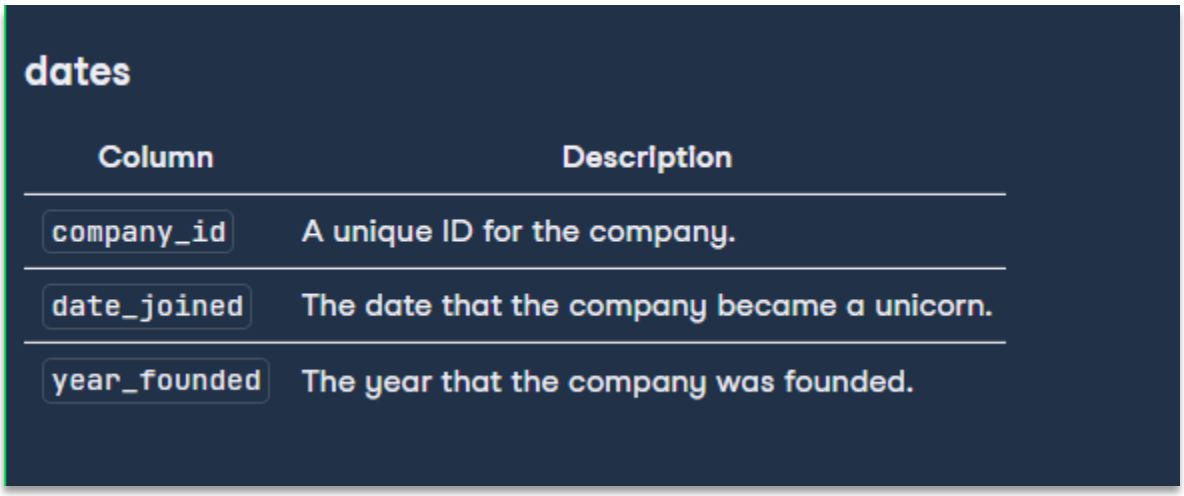


Figure 1 Database Table 1 (Dates)

Funding	Includes company_id, company valuation (in USD), total funding raised, and a list of select_investors.

funding

Column	Description
company_id	A unique ID for the company.
valuation	Company value in US dollars.
funding	The amount of funding raised in US dollars.
select_investors	A list of key investors in the company.

Figure 2 Database Table 2 (Funding)

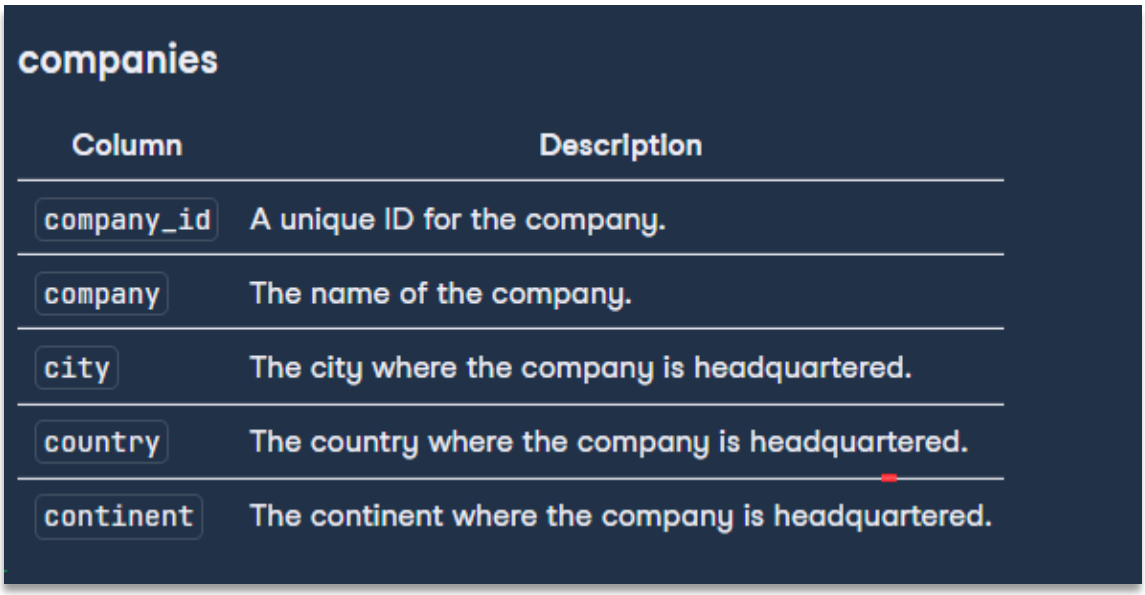
industries Specifies the industry in which each company operates.

industries

Column	Description
company_id	A unique ID for the company.
industry	The industry that the company operates in.

Figure 3 Database Table 3 (Industriess)

companies Provides metadata such as company name, city, country, and continent of headquarters



companies

Column	Description
company_id	A unique ID for the company.
company	The name of the company.
city	The city where the company is headquartered.
country	The country where the company is headquartered.
continent	The continent where the company is headquartered.

Figure 4 Database Table 4 (Companies)

Tools Used

- SQL For querying and analysing the relational data.
- Microsoft Excel, For visualizing trends across industries and time periods.
- Microsoft Word: For creating this professional report.

Methodology

The project followed a structured approach:

Data Integration: Merged the dates, funding, and industries tables using company_id as the primary key.

Time Extraction: Extracted the year from the date_joined field to analyze when companies achieved unicorn status.

Data Cleaning: Ensured all valuations were expressed in consistent units (USD), converting large values into billions for easier interpretation.

Industry Ranking: Calculated total valuation per industry to identify the top 3 industries producing the highest-valued unicorns.

Trend Analysis: Aggregated the number of unicorns created per year within the top 3 industries and computed average valuation per year.

SQL Query

Explanation:

This query identifies the top 3 industries with the highest number of companies that joined in the years 2019, 2020, or 2021. It does so by joining the industries and dates tables using the company_id, filtering the data by the specified years, and then grouping by industry to count the number of companies per industry.

```
with top_industries as (

    select i.industry , count(i.company_id) as Count_of_companies

from industries as i
inner join dates as d
on i.company_id = d.company_id
where extract(year from d.date_joined)  in (2019, 2020, 2021)
group by i.industry
    order by count_of_companies desc
    limit 3

),
```

Explanation:

The yearly_rankings CTE calculates annual statistics for each industry. It counts how many unicorn companies (num_unicorns) exist per industry each year, and computes their average valuation. This is achieved by joining the industries, dates, and funding tables using the company_id key, grouping the results by industry and year.

```
yearly_rankings AS
(
    SELECT COUNT(i.*) AS num_unicorns,
        i.industry,
        EXTRACT(year FROM d.date_joined) AS year,
        AVG(f.valuation) AS average_valuation
    FROM industries AS i
    INNER JOIN dates AS d
        ON i.company_id = d.company_id
    INNER JOIN funding AS f
        ON d.company_id = f.company_id
    GROUP BY industry, year
)
```

Explanation

This query retrieves the yearly unicorn statistics—industry, year, number of unicorns, and average valuation (in billions)—for the years 2019 to 2021. It filters the results to include only the top industries identified earlier. The results are grouped by industry, year, and unicorn count, then ordered by year (most recent first) and number of unicorns, providing a clear ranking of industry performance over time.

```
SELECT industry,
    year,
    num_unicorns,
    ROUND(AVG(average_valuation / 1000000000), 2) AS average_valuation_billions
FROM yearly_rankings
WHERE year in ('2019', '2020', '2021')
    AND industry in (SELECT industry
                     FROM top_industries)
GROUP BY industry, num_unicorns, year
ORDER BY year DESC, num_unicorns DESC;
```

Output Table

Table | Chart | Filter | Columns | Search

index	industry	year	num_unicorns	average_valuation_billions
0	Fintech	2021	138	2.75
1	Internet software & services	2021	119	2.15
2	E-commerce & direct-to-consumer	2021	47	2.47
3	Internet software & services	2020	20	4.35
4	E-commerce & direct-to-consumer	2020	16	4
5	Fintech	2020	15	4.33
6	Fintech	2019	20	6.8
7	Internet software & services	2019	13	4.23
8	E-commerce & direct-to-consumer	2019	12	2.58

Key Insights

- Fintech consistently leads in unicorn creation between 2019 and 2021, highlighting the sector's rapid innovation and strong investor confidence.
- E-Commerce remains a significant contributor to unicorn emergence, reflecting sustained growth in digital retail and consumer adoption.
- The Healthcare industry has shown notable growth in unicorn numbers, indicating rising investment in health technology and biotech innovation.
- Average valuations across these top industries demonstrate steady growth, suggesting increasing market maturity and higher capital inflows.
- The concentration of unicorn formation in a few industries suggests investors are favoring sectors with proven scalability and disruptive potential.

Business value & Impact

This analysis offers valuable insights for investment firms and stakeholders by identifying industries with the most significant growth in unicorn companies and valuation increases between 2019 and 2021. By focusing on sectors such as Fintech, E-Commerce, and Healthcare, investors can strategically allocate capital to industries demonstrating strong innovation, scalability, and market demand. This data-driven approach not only reduces investment risks but

also enhances the potential for higher returns by targeting high-growth sectors poised for continued expansion.

Visualisation

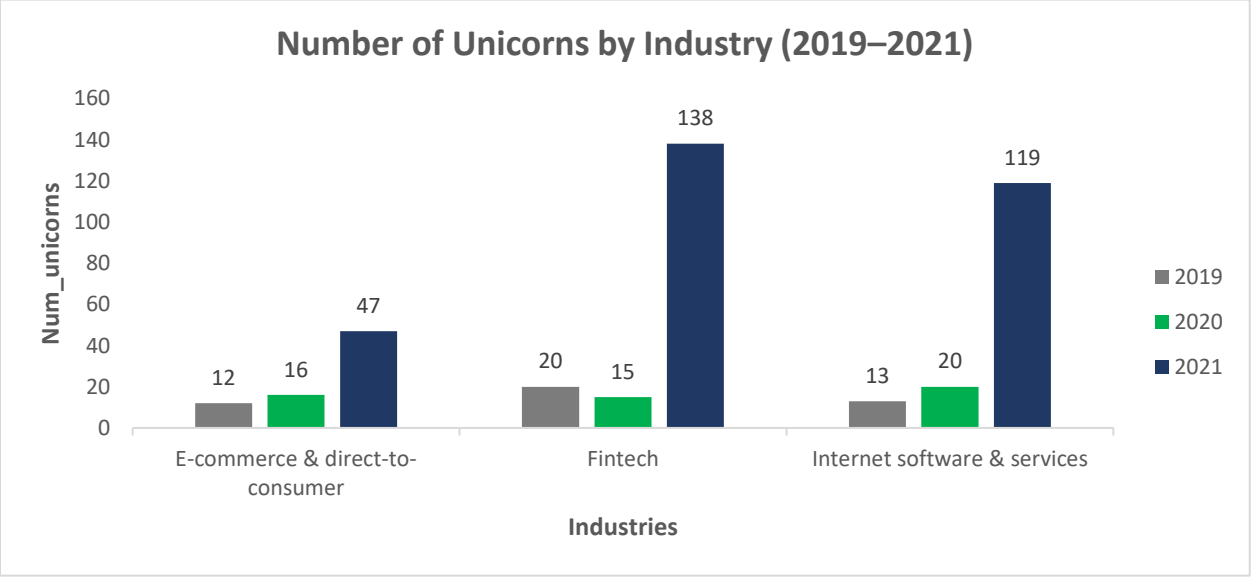
Visualization: Number of Unicorns by Industry (2019–2021)

The clustered column chart displays the number of unicorn companies in three major industries E-commerce & Direct-to-Consumer, Fintech, and Internet Software & Services—over the years 2019, 2020, and 2021.

The data highlights key trends:

- E-commerce & Direct-to-Consumer shows steady growth, reaching 47 unicorns in 2021.
- Fintech experiences a dramatic rise in 2021, reaching 138 unicorns, the highest among all industries.
- Internet Software & Services also records significant growth, with 119 unicorns in 2021.

This visualization allows for quick comparison across industries and years, clearly showing which sectors experienced the most substantial growth in the unicorn landscape during the period.



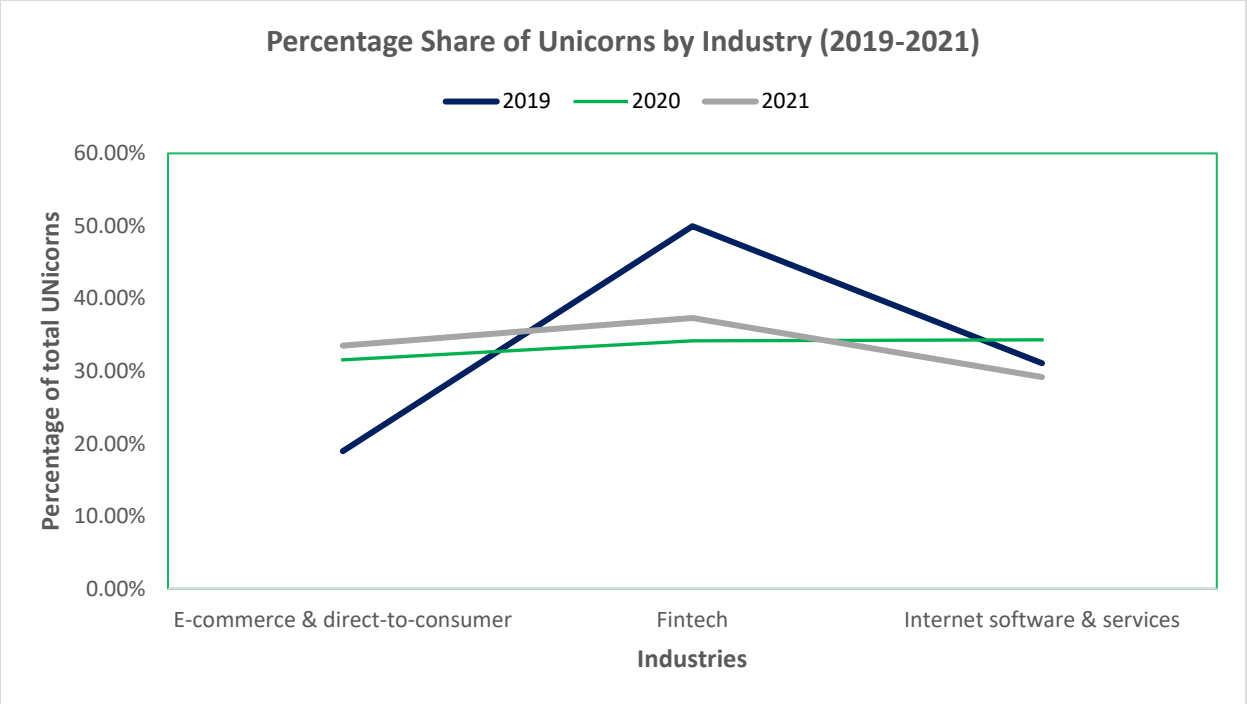
Visualization: Percentage Share of Unicorns by Industry (2019–2021)

The line chart illustrates the **percentage share of unicorn companies** across three industries—**E-commerce & Direct-to-Consumer**, **Fintech**, and **Internet Software & Services**—for the years **2019, 2020, and 2021**.

Key observations include:

- In **2019**, Fintech accounted for approximately half of all unicorns, marking the highest share in the dataset.
- By **2021**, the distribution became more balanced across the three industries, with each holding between 28% and 38% of the total share.
- **E-commerce & Direct-to-Consumer** and **Internet Software & Services** saw relatively stable shares across the three years, with slight variations.

This visualization highlights shifts in market dominance and provides a comparative view of how industry proportions evolved over time, independent of total unicorn counts.



Visualization 3: Unicorn Count and Average Valuation by Industry

The combo chart presents both the number of unicorn companies and their average valuations

(in billions USD) across various industries. The chart uses clustered columns to represent unicorn counts and a line to depict average valuations, allowing for a dual perspective on quantity and value.

Key insights:

- **Fintech** and **Internet Software & Services** have the highest unicorn counts, with over 100 and 90 respectively, but relatively moderate average valuations of $2.75 billion and $2.15 billion.
- Some industries with fewer unicorns—such as certain E-commerce & Direct-to-Consumer categories—achieve higher average valuations, with peaks up to **$6.80 billion**.
- The data highlights that a larger number of unicorns does not always correspond to higher average valuations, reflecting differences in market size, maturity, and investment dynamics.

This visualization effectively combines volume and value metrics, enabling a more nuanced analysis of industry performance in the unicorn landscape.