A TECHNICAL REPORT ON STARTUP FAILURE ANALYSIS FROM 2016 - 2024

WRITTEN BY

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1. OUTLINE

2. INTRODUCTION

Objective of the Project: This project analyzes the reasons behind startup failures across different sectors, funding levels, and market conditions from 2016 - 2024. The goal is to uncover key failure patterns, assess the impact of competition, trust, and platform dependency, and provide insights to help future startups navigate challenges effectively.

Problem Being Addressed: This analysis addresses the following critical questions:

- Which sectors experience the highest failure rates, and why?
- How do tech giants and direct competitors contribute to startup failures?
- What role do customer trust, product-market fit, and overhype play in a startup's downfall?
- How does reliance on third-party platforms impact sustainability?
- What is the average operational lifespan of startups across industries, and what can be learned from it?

Key Datasets and Methodologies: The dataset categorizes failed startups from 2016 - 2024, analyzing their failure reasons, industry trends, and external pressures. Key methodologies used include:

- I cleaned the data by organizing failure reasons into key categories such as competition, market fit, monetization, execution, and platform dependency.
- Examined failure rates by year, sector, and external factors like competition with tech giants.
- I used Pivot Tables and Charts to analyze the startup's key metrics in the dataset
- I then brought up the pivot charts together to create a dashboard and tell a story

3. STORY OF THE DATA

Purpose: The dataset represents 260 failed startups, analyzing the impact of competition, market fit, monetization, and platform dependency on their survival. The goal was to identify key failure patterns, industry trends, and external pressures influencing startup outcomes. My approach involved:

- Ensuring consistency by categorizing failure reasons into major categories.

- I then grouped the dataset into relevant categories such as sector performance, platform dependency, and failure trends and also changed the dataset to a standard Excel table
- I created a Pre-Analysis Board to split the dataset into different sub-categories to help me in my analysis.
- I created pivot tables and charts to analyze startup failure rates across different industries and timeframes.
- I also created an In-Analysis Board to track findings from the pivot charts.
- I then Compiled insights into a final dashboard for easy interpretation.
- From there I summarized key insights and recommendations for stakeholders.

Data Source: The dataset was created manually, structuring failure factors based on real-world startup challenges.

Data Collection Process: There was no direct collection process; the dataset was designed to reflect common failure scenarios in the startup ecosystem.

Data Structure: The dataset is structured in a tabular format, with each row representing a failed startup and columns detailing its industry, years of operation, reason for failure, and dependencies.

Important Features and Their Significance: Some of the important features in the dataset include

- Startup Name Identifies each startup.
- The Sector categorizes startups by industry.
- Years of Operation shows startup lifespan before failure.
- Why they failed is the primary cause behind the shutdown.
- Giants indicate if the startup lost to a giant company or direct rival.
- Monetization Failure analyzes if the product had demand or struggled financially.
- Platform Dependency: Highlights whether the startup relied too much on external platforms.

4. DATA SPLITTING AND PREPROCESSING

Data Cleaning: The first step was to clean up the dataset. I noticed a few formatting inconsistencies, duplicate entries, and column names that weren't very clear. I fixed all these to ensure the data was structured properly.

Handling Missing Values: For this dataset, there were no missing values so no imputation was required.

Data Transformations: To make the dataset more dynamic and easier to analyze, I converted it into a standard Excel table. This allowed for better filtering, sorting, and referencing during analysis.

Data Splitting: To make my analysis more structured and easier, I categorized my data points into dependent and independent variables.

- Independent Variables: Name, Sector, Years of operation, Years founded, etc.
- Dependent Variables: Why they failed, Giants, no budget, Competition, Overhype

Industry Context: The dataset falls under the Digital Services category.

Stakeholders: The key stakeholders of this project are startup founders and Investors, Tech and Business Communities and, CEO's.

Value to the Industry: The significance of this analysis to the industry is to help startups avoid common problems like poor market fit etc, it also shows the impact of tech giants on startups, which industries struggle the most, and the importance of customer trust, platform dependency and funding to a startup growth.

5. PRE-ANALYSIS

Identify Key Trends: While looking at the dataset, I noticed that startups in the Entertainment sector appeared frequently, suggesting a lot of startups in this sector failed. Also, many startups with high funding amounts still failed, indicating that funding alone wasn't a guarantee of success. Another interesting trend was that startups that relied

heavily on platform dependencies (like Twitter, Facebook, or Google) seemed to have a higher failure rate.

Potential Correlations: Some of the correlations I noticed were:

Industry vs. Failure Reason – Many Retail sector startups failed due to high competition with giants and over-dependency on other platforms.

Overhype vs. Longevity – Some startups that were overhyped still failed quickly, suggesting poorly delivered products.

Platform Dependency vs. Failure – Startups that relied heavily on third-party platforms tended to struggle when those platforms changed policies or lost user engagement.

Initial Insights: Some key insights that stood out as promising for further analysis include:

- Which industries had the highest failure rates?
- Did startups with higher funding amounts last longer or fail faster?
- What were the most common failure reasons across different startups?
- How did competition affect startup survival?
- What role did platform dependencies play in startup failures?

6. IN-ANALYSIS

Unconfirmed Insights: While creating my charts some of the insights I got from them included:

- The Sector with the Most Failed startups is the Entertainment Sector, While Finance was the sector with the least Failed Startups
- 2024 was the year with the most startups shutting down
- 29% of the startups were able to compete with Giants companies
- 29% of the startups were not able to build trust with their customers.
- 28.46% of the companies were too dependent on other platforms
- 15% of the startups Failed to find a product-fit market for their services
- Startups from the Real Estate Category had the longest life span before shutting down with an average operational year of 8.73 years.

Recommendations: Some of the recommendations I could give from these insights I got were:

- They should look into why the Entertainment Sector had the most failed startups, and they can apply Strategies used by the Finance Sector.
- Failures peak in 2024 showing a rising trend in startup failures.
- Just 29% of the Startups were able to compete with Giant companies, which shows a challenge with many struggling to compete.
- 28.46 startups were too dependent on other platforms which increased failure risk.
- Real estate startups had the longest life span while Tech startups had the shortest life span which might be due to rapid change in market
- 15% of startups had issues with finding a market fit for their products.

Analysis Techniques Used in Excel: For this project, I used Pivot Tables and Charts in Excel. These tools were chosen for their dynamic nature, allowing me to automatically update the visualizations when the dataset is modified. Pivot Tables also made it easier to analyze large amounts of data and uncover trends efficiently.

7. POST ANALYTICS AND INSIGHTS

Key Findings: Some of the key findings from my analysis were.

- Entertainment had the highest number of failed startups, suggesting that creative and media-focused ventures face significant market challenges.
- 2024 recorded the highest number of startup failures, indicating recent economic shifts, market saturation, or increased competition.
- Over 55% of failed startups were dependent on external platforms (e.g., social media or third-party services), showing how reliance on external ecosystems increases risk.
- Product-market fit issues were the leading cause of startup failure (15%), reinforcing the importance of validating demand before scaling.
- 29% of startups that competed with tech giants struggled or failed, proving that market dominance by large companies makes survival difficult.

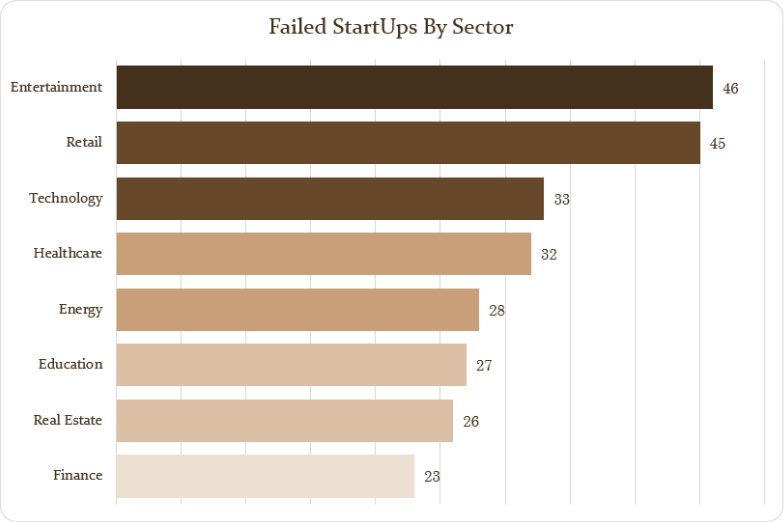
Comparison with Initial Findings:

- Initially, I expected technology startups to dominate failures, but entertainment and retail had more failures, highlighting industry-specific risks.
- I assumed early-stage startups (1-3 years) would fail the most, but some sectors (Real Estate, Energy) lasted over 7 years before collapsing, showing that failure isn’t always immediate.
- I thought startups with high funding would survive longer, but monetization failures and reliance on external platforms still led to collapse, proving that revenue generation is more critical than just raising capital.

8. DATA VISUALIZATION AND CHARTS

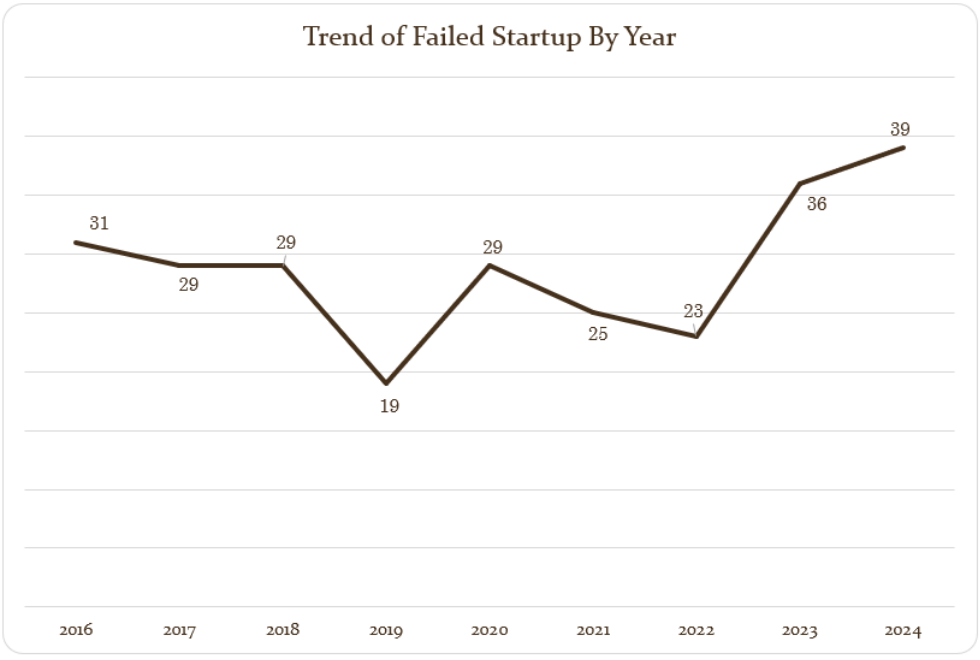
Some of the charts used in my project include:

Failed Startups by Sector



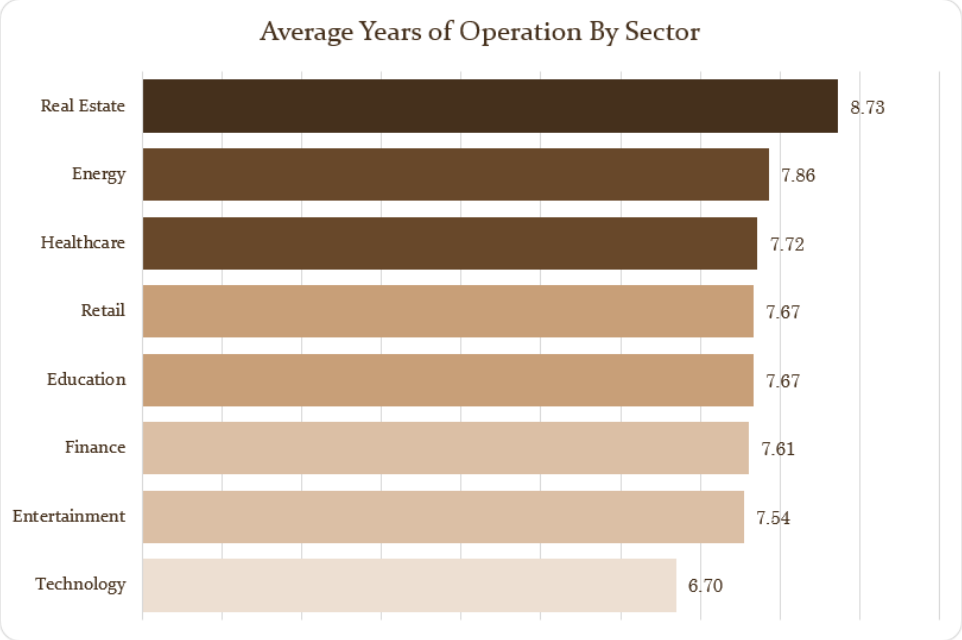
The Entertainment sector had the highest number of failed startups (46), followed closely by Retail (45). Technology (33) and Healthcare (32) also saw significant failures, possibly due to high competition and regulatory challenges. Energy, Education, and Real Estate had moderate failure rates, while Finance had the least failures (23), likely due to more structured business models. This suggests industries with heavy consumer reliance or innovation demands face higher risks.

Trend of Failed Startups by Year



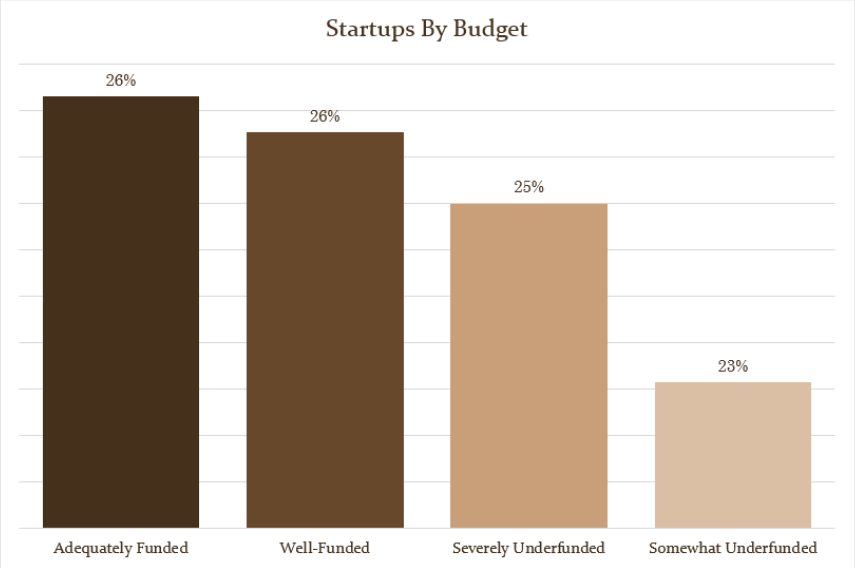
Startup failures fluctuated over the years, with a notable drop to 19 in 2019 (the least failed year), possibly due to favorable market conditions or increased funding opportunities. However, failures rose again from 2020 onwards, reaching a peak of 39 in 2024 (the most failed year), indicating rising challenges such as economic downturns or increased competition. The sharp increase from 2022 to 2024 suggests worsening conditions for startups. The COVID-19 pandemic (2020-2021) might have impacted businesses, but the post-pandemic surge in failures is concerning.

Average Years of Operation by Sector



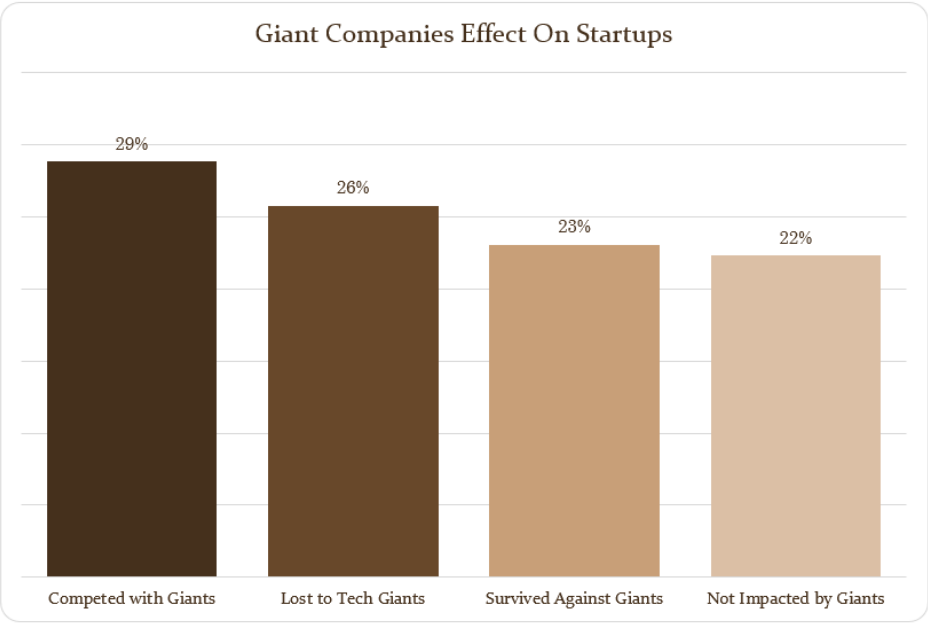
Technology startups had the shortest lifespan, averaging 6.70 years, possibly due to rapid innovation cycles and high competition. In contrast, Real Estate startups lasted the longest at 8.73 years, likely benefiting from stable market demand and long-term investment returns. Other sectors, such as Energy (7.86 years) and Healthcare (7.72 years), had relatively higher longevity, reflecting their essential nature and capital-intensive operations.

Startups Budget



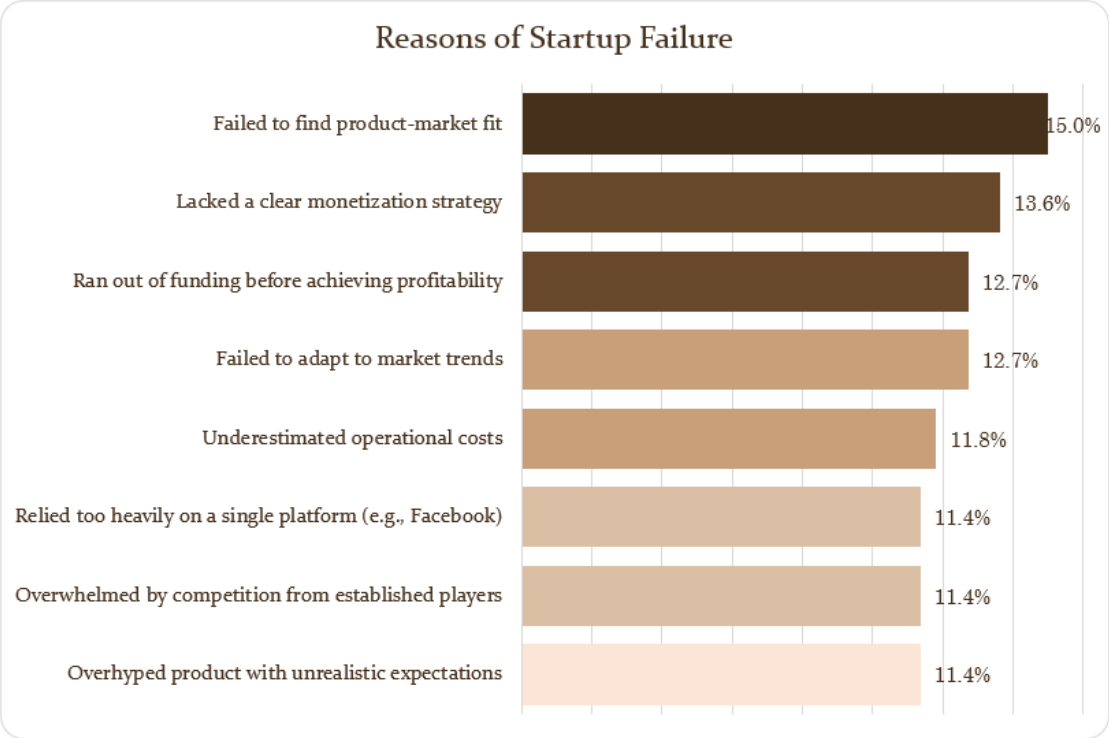
Startups were fairly distributed across funding levels, with 26% being adequately funded and another 26% well-funded, indicating that a majority had reasonable financial backing. However, 25% were severely underfunded, and 23% were somewhat underfunded, highlighting that nearly half of the startups faced financial constraints, which could have contributed to their failure.

Effect of Giant Companies on startups



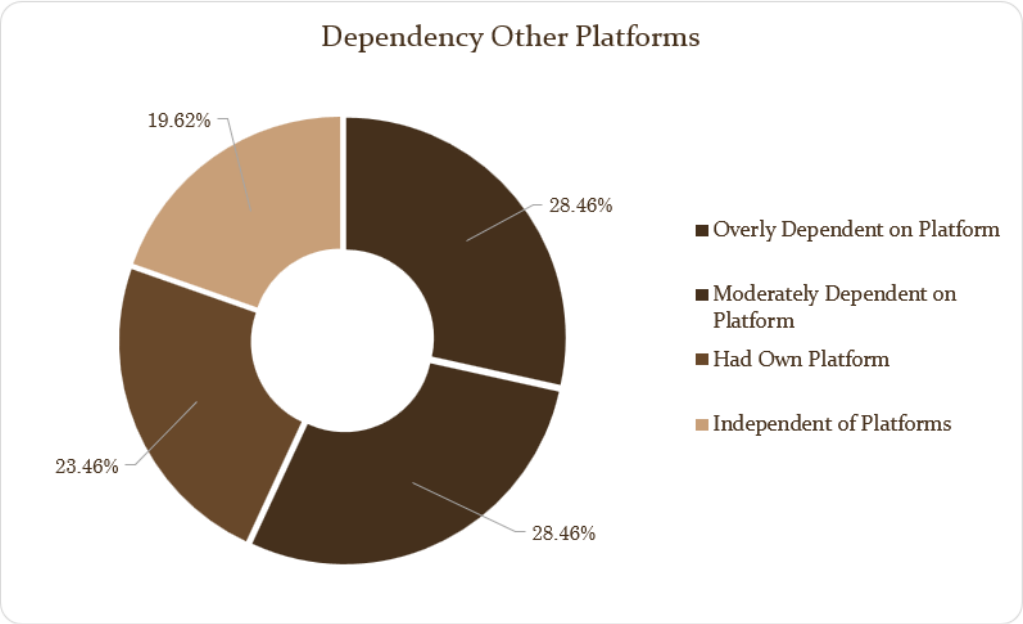
Nearly 30% of startups directly competed with tech giants, while 26% failed due to competition from them, emphasizing the dominance of major players. However, 23% managed to survive against these giants, showing resilience. Meanwhile, 22% were not affected, indicating that not all failures were linked to industry giants.\

Reasons for Failure



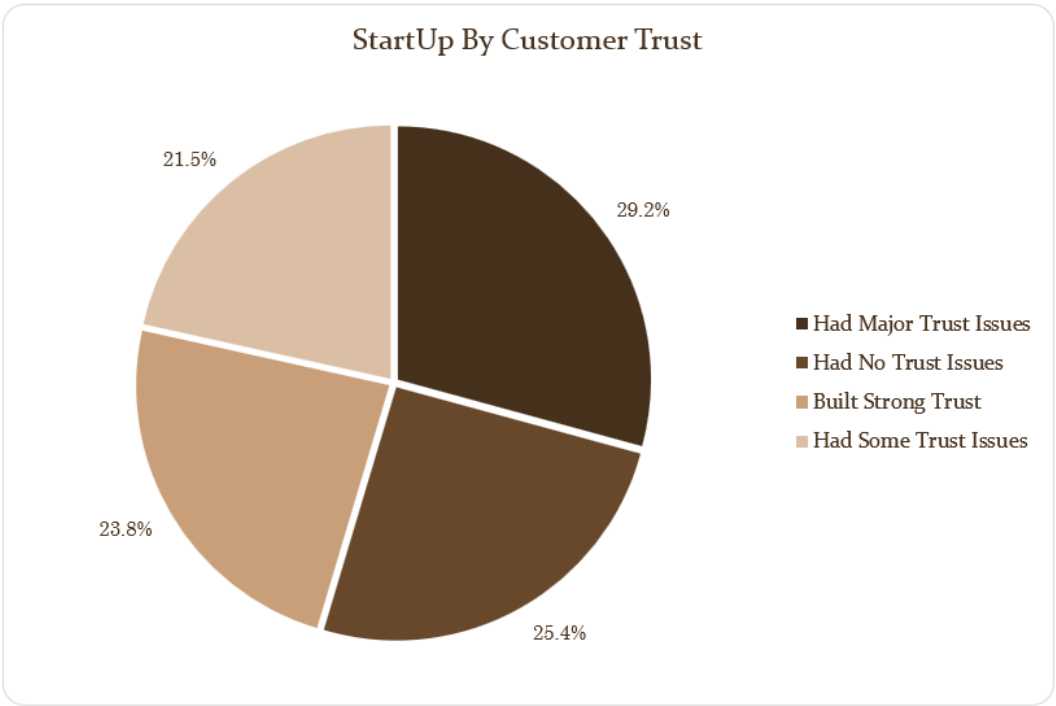
The top reason for startup failure is the lack of product-market fit (15%), highlighting the challenge of meeting consumer needs. Poor monetization strategies (13.6%) and running out of funds before profitability (12.7%) are also major hurdles. Additionally, failure to adapt to market trends (12.7%) and underestimating operational costs (11.8%) further contribute to closures. Over-reliance on single platforms (11.4%), competition from giants, and overhyped expectations also pose risks.

Dependency on other platforms

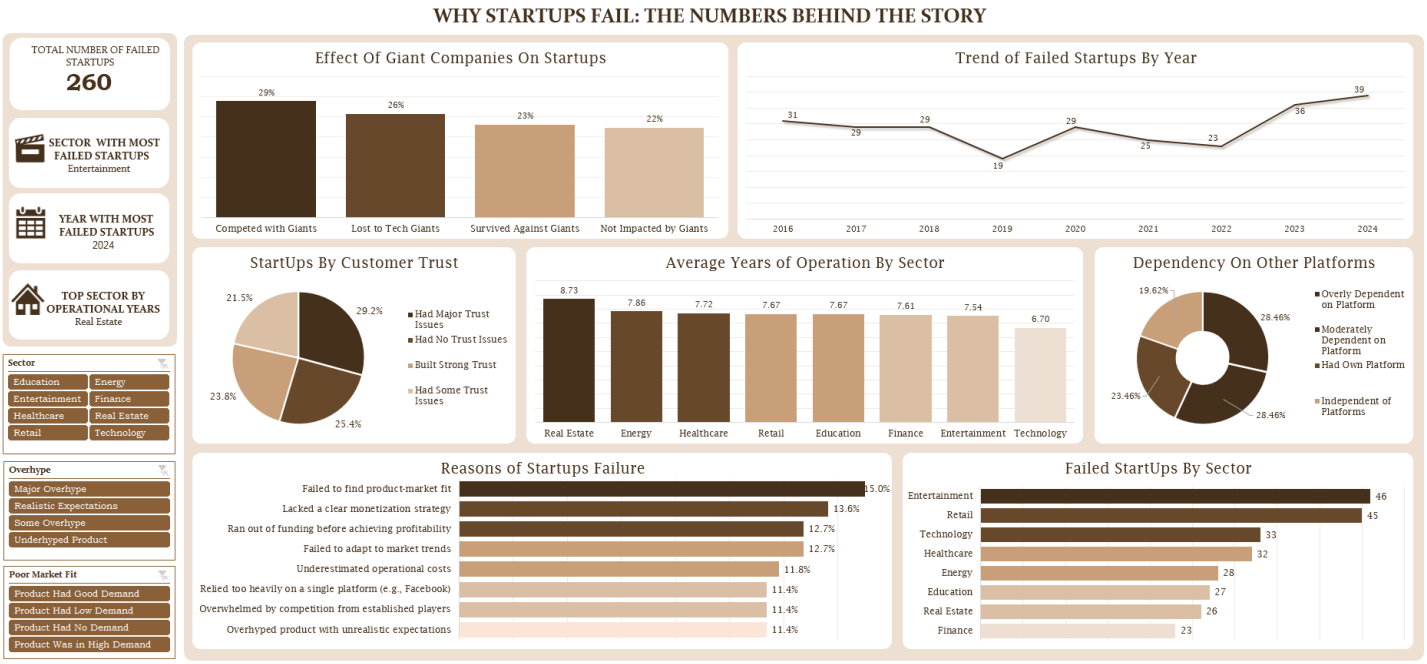


Nearly 57% of startups relied on external platforms, with 28.46% being overly dependent, making them vulnerable to policy changes or platform shifts. 23.46% had their own platforms, providing more control, while 19.62% operated independently. This highlights the risks of platform dependency, as startups without their own infrastructure may struggle with sustainability.

Customers Trust in the Startup



Customer trust played a crucial role in startup success. 29.2% of startups faced major trust issues, which likely contributed to failure. Meanwhile, 25.4% had no trust issues, suggesting that trust alone wasn't always a success factor. 23.8% actively built strong trust, while 21.5% had some trust concerns. This highlights how startups with credibility issues struggled more, reinforcing the importance of transparency and reliability.



Dashboard on the Analysis of Why Startups Fail

9. RECOMMENDATIONS AND OBSERVATIONS

OBSERVATION

Some of the things I observed from the dashboard analysis include:

- Among all failed startups, 29% competed with top companies, 26% lost, 23% survived alongside them, and 22% were unaffected. In total, 55% struggled against industry giants, highlighting their overwhelming market power.
- Startup failures fluctuated from 2016 to 2024, peaking at 39 in 2024. Numbers were stable from 2017-2018, dropped in 2019, then surged in 2020 before declining again. The sharp rise in 2024 could be linked to economic downturns or funding shortages.
- Trust issues played a crucial role, with 29.2% of failed startups facing major customer trust problems, while 25.4% had none. About 23.8% were deemed trustworthy, but nearly half of all failures had some level of trust-related concerns.
- The Entertainment sector had the most failed startups (46), followed by Retail (45), Tech (33), and Healthcare (32). Many Entertainment startups lacked demand, while Retail businesses were overhyped. Tech startups had the lowest product demand overall.
- Over 56% of startups failed due to dependency on external platforms, with 28.46% heavily reliant and another 28.46% moderately dependent. Meanwhile, 23.46% operated independently, and 30.77% of overhyped startups struggled due to excessive reliance on other platforms.
- The top failure reason was lack of market fit (15%), followed by poor monetization (13.6%), running out of funds (12.7%), and failure to adapt (12.7%). Other key issues included underestimated costs, over-reliance on single platforms, strong competition, and overhyped products.
- Real estate startups had the longest lifespan (8.73 years), followed by Energy (7.86) and Healthcare (7.72). Retail and Education both lasted 7.67 years, Finance 7.61, and Entertainment 7.54. Tech startups had the shortest lifespan at just 6.70 years.

RECOMMENDATIONS

Some of the recommendations I can give to the company include:

- Since 55% of startups failed due to competition with giants, they should target niches with limited giant presence. Instead of direct competition, they can create unique products or partner with established companies to leverage their market reach.
- With failure rates peaking in 2024, startups need counter-strategies like financial reserves during growth phases. Diversifying revenue sources prevents reliance on a single income stream, reducing risks from economic shifts.

- Since 56% of failures were due to platform dependency, startups should develop contingency plans and flexible solutions. They should diversify across multiple platforms to avoid major disruptions.
- Startups should validate demand before scaling to prevent wasted resources. Overhyping products without meeting customer expectations leads to failure, so regular product updates are essential.
- With 50.7% of failures tied to trust issues, startups must build transparency and strong security. Clear communication, delivering promises, and protecting customer data strengthen trust.
- Products and services should align with changing customer needs. High-failure sectors like Entertainment and Retail can learn resilience from Finance and Real Estate to improve stability.
- Low-cost sectors should focus on long-term growth, sustainable scaling, and customer retention. Consistent innovation, gradual gains, and avoiding greed-driven mistakes ensure success.

10. CONCLUSION

Startup failures are often the result of multiple interconnected factors, including competition with industry giants, overreliance on external platforms, poor financial planning, lack of market demand validation, trust issues, and unsustainable business models. The data reveals that startups must strategically position themselves in less saturated niches, diversify revenue streams, and implement contingency plans to mitigate risks. Transparent communication, strong security measures, and customer trust are crucial for long-term success. Additionally, aligning products with evolving market demands and learning from resilient industries can enhance survival rates. By adopting these insights, startups can navigate challenges more effectively and increase their chances of sustainable growth.