

Avoiding start-up failure: A review of start-up success stories

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Abstract:

A great deal of business ideas never makes it to the end due to a wide range of problems that extend from the flawed conception of the idea to the failure to capture investment for their enterprise. The objective of this study is to analyze the causes of failure of start-ups and then interview successful entrepreneurs turned into small business owners to derive the causes of success of start-ups. Three interviews to small business owners were conducted to collect data on market and technology risks and difficulties faced in turning their project into a business. There were three main conclusions taken from the interviews: That all successful entrepreneurs were motivated to start the enterprise due to finding a real market need first and then devising a product/service to respond to that market need; that the vision of the entrepreneurs for their enterprise did not change substantially since the foundation of the company; that among the companies there were different levels of innovation being implemented that depend on company's business model. These three conclusions can be summed up into the following: Any enterprise to endure must answer to a real market need, building its vision around those market necessities and adjusting the level of innovation according to market demands.

Keywords: Entrepreneurs, market need, start-up failure, innovation

1. Introduction

A great deal of business ideas never makes it to the end due to a wide range of problems that extend from the flawed conception of the idea to the failure to capture investment for their enterprise. Even after capturing investment around 50% of small business ventures will fail until the fifth year (U.S. Bureau of Labour Statistics, 2022). There are many ways start-ups can fail and several studies have been made to describe and comprehend such failures. These studies may help future entrepreneurs to look for common causes of failure that may arise during the development of their businesses in a way that they can plan to avoid these causes from happening. On a brighter side the factors of success can be also useful to help entrepreneurs devise strategies for the success of their own start-up and are thus also discussed studies in this article that investigate the factors of success.

According to the Office of Advocacy (2019) (from the U.S. Small Business Administration) in the United States, small businesses are 99.9% of all firms, comprise 33.3% of known export value and employ 47.3% of private sector employees. Moreover, small businesses created in the period from 2000 to 2018 9,6 million net new jobs compared to 5,2 form large businesses. This number of net new jobs comes as such despite the 50% closure rate after 5 years and the rate of growth of small businesses (making them jump category and count on the large business statistics). From these numbers we can conclude that small businesses generate a big part of new employment and are vital for economic resilience and growth. Therefore, if there is a way of mitigating failure in the early stages of a start-up there would be a positive contribution to the number of active small businesses and consequently to a country's economy. Moreover, a small percentage of successful start-ups tends to be very successful and experience rapid growth. These start-ups contribute disproportionately to job creation output and productivity growth mainly by relocating labour resources from older firms and increasing their productivity (Haltiwanger et al., 2016).

In this article start-up success and failure reasons will be discussed. Firstly, start-up failure studies will be presented and briefly discussed, start-up failure cases will be also presented and discussed. After that interview results will be presented from three interviews made to small business owners. Finally, conclusions will be presented.

2. A Review of Start-up Failure Causes

Start-ups fail. According to a study from CBInsights (2021) analysing 111 cases of start-up post-mortem since 2018, most start-ups fail because of one or more of these reasons:

1. Ran out of funds (38%)
2. No market need (35%)
3. Got outcompeted (20%)
4. Flawed business model (19%)

Analysing the items above a relation can be made from points 1 and 2 in the sense that if there is no market for the product the company cannot generate revenue. In conclusion the company ran out of funds and cannot hire the right people for the jobs, getting outcompeted. In fact, point 3 and 4 can be speculated to be symptoms of point 1 since funds are tied to sales and to hiring a better team than the competitors, if not the right team. Hence, we can speculate that the single most important reason for start-ups to fail is that there is no market for the product being sold and from that reason stem a myriad of other problems.

A study from Bednár & Tarišková (2017) based on data from the Autopsy.io website ranks the following reasons for start-ups to fail:

1. Lack of money for further development (34%)
2. No need for a product/service in the market (28%)
3. No investors (16%)
4. Cost issues (16%)

Interestingly the same two main causes of failure coincide with the study from above. The fact that the data is independent can lead to the conclusion that these problems are common among start-ups and appear in a specific order at least the first two. It can again be speculated that the product didn't gain enough traction in the market and therefore there wasn't enough funding from investors to cover the development costs.

Another study on start-up failure from Cantamessa et al. (2018) based on data from the CBInsights platform and from Autopsy.io gives slightly different findings:

1. No or Wrong Business Model (35%)
2. Lack of Business Development (28%)
3. Run out of Cash (21%)
4. No product/market fit (18%)
5. Bad organization (14%)

This study analyses 214 start-ups from both databases and concludes that the first two causes for start-up failure are related to bad commercial development. Not having or having the wrong business model and not developing it along the journey are the two top reasons why start-ups fail. Behind these reasons are the excessive focus of management and founders on the product/service instead of focusing on perfecting the business model Following in the same

order are running out of cash and no product/market fit, which is consistent with the first study analysed. This study also segmented the companies according to their age at the failure. The reasons for failure during the first year are a combination of No/wrong business model and lack of business development, which results in a premature run out of cash. On the second and third year the lack of product-market fit linked to a no/wrong business model is even more relevant. On the fourth and fifth year the lack of business development acquires even more importance. The study finds that a pattern of failure emerges related to the business development process. Start-ups design a business model and then focus solely on the development of the product/service disregarding the design of a reliable measurable Business development phase (Cantamessa et al., 2018).

3. Case Studies Analysis

In this section there will be a brief analysis of cases of failed companies based on the findings of Triebel et al. (2018) and CBIInsights (2022):

Boo.com

Boo.com was founded by Ernst Malmsten, Kajsa Leander and Patrik Hedelin in London in 1998. The business goal of the company was the online distribution of street- and sportswear. The concept was well received in the beginning by customers and investors, the founders gathering 120 million dollars of VC. The troubles started a year after the founding, with delays in launching the site. The site itself was another problem as it was not user-friendly: The homepage took minutes to load for most users that did not have broadband technology at the time. Furthermore, the uncontrolled hiring of employees, the lack of the establishment of clear management structures, above-average salaries and the huge expense reports while exploring the international market all contributed to failure of the company. Boo.com was 9 years ahead of its time, presenting a website complicated to access to most internet users at the time (Wikipedia contributors, 2022a; Wray, 2005).

ScaleFactor

ScaleFactor was a finance and accounting platform that promised to deliver an AI automated bookkeeping service to customers that would take care of bookkeeping, bills, and taxes at a fraction of the cost. Customers just had to hand over paperwork, receipts, and login information

for their sales software to a software tool that took care of organizing the numbers and expenses. The problem was that the tool was glitchy and could not accurately sort transactions. To solve this problem a team of accountants and bookkeepers was hired to correct the A.I. mistakes but it was not sufficient. In the end the company was stuck with a product that did not meet expectations and that would do more harm than good to customers, a team of hired offshore accountants trying to contain the problems generated by the A.I. and a starting a wave of cancellation requests from dissatisfied customers. Instead of correcting the software the company bet on chasing capital and using aggressive sales tactics to earn more customers. This proved fatal for the company (Jeans,2020; CBInsights,2022).

Protonn

Protonn was a platform to help independent professionals launch businesses online while charging a flat subscription fee per business owner. It enabled free-lance employees to launch their businesses online, create videos, conduct live sessions, generate payment links and track their business' financial performance. It provided a way for free lancers to market themselves using video while simultaneously managing their business. The platform closed in the first weeks of 2022, reportedly unable to find product-market fit and its founders were not able to rework the company's business model to adapt. While not the main contributor, the pandemic also exacerbated existing complications surrounding market alignment (CBInsights,2022; Ettech,2021).

Webvan

Webvan was an online grocery shop that declared bankruptcy in 2001. The company was founded in 1996 and it delivered products to customers' homes within a 30-minute window of their choosing. Company's investors pressured for very fast growth to obtain first-mover advantage. Webvan proceeded to invest \$1 billion in a warehouse and bought a fleet of delivery trucks. The causes of failure of Webvan were mainly its aggressive expansion to many cities without proving its business model in its first market, a business model targeting price-sensitive mass-market consumers rather than upmarket consumers who would be more profitable, the slow growth of customers and the fact that it attempted to build its own warehouses and fulfilment infrastructure from scratch (Wikipedia contributors,2022b).

Bluesmart

Bluesmart was a company manufacturing smart luggage on the market since 2014. It offered to customers a suitcase with GPS tracking, an embedded scale, Bluetooth locks and an integrated lithium battery that could charge a smartphone. Ultimately it failed because of the widespread airline ban on luggage with non-removal batteries placed in 2018 to limit the risk of battery fires. The company was stuck with its non-removable battery design and had just completed pre-orders of a second-gen version of the product. At the time of the ban the company had around 65'000 suitcases circulating worldwide (O'Kane, 2018).

Hivebeat

Hivebeat was a social event discovery platform online launched in 2015 to help students organize, promote, and manage events. The app allowed student organizations, fraternities, sororities, and student clubs to take payments, sell tickets, manage members, and promote events on campus. Through Hivebeat.com students could search for specific communities and events or sign up with their own. It was shut down in 2016 due to never hitting product/market fit, loss of focus and unstable revenue curve (Bøgh, 2015, 2016).

Table 1 – Failed company cases

7	8 Company Description	9 Invested VC	10 Active Period	11 Reason for Failure
12	13 Boo.com Online distribution of street- and sportswear	14 \$135M	15 1998-2000	16 Technical difficulties with the on-line portal. Site barely accessible to most customers. Not the right time for the product. Aggressive growth plan
17	18 ScaleFactor Provides automation tools for bookkeeping, tax compliance and financial analysis	19 \$106.76M	20 2014-2020	21 Used aggressive sales tactics and prioritized chasing capital instead of building the required software. Failed to deliver a quality product
22	23 Protonn platform to help independent	24 \$9M	25 2020-2021	26 Unable to find product-market fit, and its founders were not able to

	professionals launch businesses				rework the company's business model in order to adapt
27	Webvan	28 Online grocery trade	29 \$1.2B	30 1996-2001	31 The development of company-owned supply chain led to the closure of the company, as the existing capital could not cover the costs of this project.
32	Bluesmart	33 Makers of smart luggage with location tracking, Bluetooth lock, USB battery charge and other functionalities	34 \$27.35M	35 2014-2018	36 The changes in policies announced by airlines, banning of smart luggage with non-removable batteries put the company in unsustainable financial and business situation
37	Hivebeat	38 developed a way for student organizations to promote and manage events on campus	39 \$130K	40 2015-2016	41 Failed to hit product/market fit as the product was too generic for a niche industry. The transaction-based business model makes it hard to predict revenues

Source: CBIInsights, 2022; Triebel et al.,2018

Insights from the case studies

The businesses listed here have different causes of failure, nonetheless failure happens for an identifiable mix of reasons and at certain stages of company development. It can be speculated that all the minor problems the company may have amount in the end to lack of capital, which then becomes the official reason for closure or bankruptcy. But behind lack of capital hide other structural problems that have to do with the business model.

With respect to factors that can be company controlled, in all companies previously discussed (except for bluesmart, which failed due to the imposition of regulatory challenges) failure can be traced to problems with one or more of the components defining the business model:

- Value Creation

- Value Delivery
- Value Capture

For a business model to be sustainable the product/service sold needs to offer more benefits than its price for the customer to consider a purchase. Finally, the product/service must cost the company less than its sale price. Hence the ‘rule of thumb’:

$$\text{Created Value} > \text{Captured Value} > \text{Delivered Value}$$

Satisfying this equation is of utmost importance for the business to run healthy. Many of the failures exposed previously have problems maintaining this equation valid for their business models either during start-up phase or during the growth phase. The only exception here being bluesmart, which failure results from legislation problems. Some companies in this study (the late ones particularly) failed because they could not prove the business model sustainable in the start-up phase, in other words they could not find product/market fit early on. Some companies may fail because they cannot effectively scale their business model. And some other companies (particularly the earlier ones in this study) failed because they scaled a failed business model.

4. Interviews to Entrepreneurs

To derive the causes of success of start-ups, small business owners were interviewed. The interviews consisted of three main parts:

- Contextualization: Where general questions about the interviewed are asked.
- Product/Market fit: Where it is asked about the technology view/market view dichotomy.
- Lessons Learned: Where the interviewed expresses what he learned during the process of conception of a business.

Table 1 – Interviews findings

42	43 Entrepreneur A	44 Entrepreneur B	45 Entrepreneur C
46 Education	47 MSc. Mechanical Engineer	48 MSc. Mechanical Engineer	49 MSc. Mechanical Engineer
50 Tech/Market Trigger	51 Fragmented supply (Market trigger)	52 Networking and legislation opportunity (Market trigger)	53 Problem solving of family need (Market trigger) 54

55	Idea/Prototype	56 Conveyor Systems Development	57 Renewable Energy Services	58 Hardware Development and Prototyping
59	Vision/Mission	60 Defined in the beginning, slightly changed	61 Defined in the beginning	62 Defined in the beginning
63	Technological Innovation (tech risk)	64 Incremental Innovation	65 Not Innovative	66 Innovative (Patent Possibility)
67	New market prospection (market risk)	68 Customization 69 Market Experience	70 Market Experience	71 No Market experience. Niche market identification
72	Product-Market fit	73 Technology pull	74 Market pull	75 Market pull
76	Funding	77 Own capital Avoidance of venture capital	78 Own capital	79 Own capital and public investment
80	Bottlenecks	81 Lack of technicians with enough expertise (market)	82 Adaptation to legislation changes 83 (market)	84 Lack of funds (market)

Source: Cascalho,2022

5. Conclusions Drawn from the Interviews

All three entrepreneurs are in very distinct areas of business, A and B are small businesses related to technology that are already in market for many years and C is a start-up that is not yet in market. The trigger was always on the market side, being never an existing technology that was then adapted to market. Instead, the entrepreneurs always started with a market need inserted in a story that was different for each entrepreneur and which led them to obtain the technology adequate to fill the need. Entrepreneurs A and B de-vised their market need and subsequently developed their business idea due to experience in the respective field. In the case of entrepreneur C, the market need was brought to him through a family member's health condition, and not by any kind of experience in the field.

The vision of the three entrepreneurs was very clear since the beginning and seldomly changed over the course of the company's life. For entrepreneur A the vision initially was to maintain conveyor systems and then expanded to design and maintenance of custom conveyor systems. Entrepreneur B had a vision (deliver and assembly of solar panels) for the company that was maintained despite the market he was operating being affected by legislation.

Entrepreneur C had a vision which is to develop and license new hardware to solve existing problems, one product at the time. This vision is changing over time to developing and small-scale production to obtain the desired funding for projects.

On product development it is noted that both entrepreneurs A and B have a sales strategy focused on customization of the service (A and B) and of the product (A) while C focuses on the development of a product for an identified niche market. Entrepreneur C is the one where the product has higher market risk, due to the niche market it is inserted in and technology risk due to the product involving patents.

Entrepreneurs A and B solely used SWOT analysis and Business Model Plan while C has knowledge of SWOT, TRIZ, Kano Model and Design Thinking and applied SWOT, TRIZ and Design Thinking to its project. This difference can be justified by C being a younger entrepreneur and therefore having contact with these methodologies through academia, attended courses and mentoring. Entrepreneur C's business also deals with innovation directly and was founded specifically to trade innovation while entrepreneur A and B founded their business after having worked in the field as employees of other companies.

Interestingly all entrepreneurs used SWOT analysis, albeit for different reasons. Entrepreneurs A and B used SWOT to define the best strategy of operation for their businesses. Entrepreneur C used SWOT to obtain funding.

Entrepreneurs A and B used their own capital when founding the company and entrepreneur A avoided using venture capital as the company in his vision should have a sustained growth. The bottlenecks cited by A were lack of technicians with sufficient autonomy to perform certain duties in the shop floor. B cited adaptation to legislation changes while C stated that there was a lack of institutional funding for small companies focused on hardware innovation.

Final Remarks

The objective of this study was to analyze the causes of failure of start-ups and then interview successful entrepreneurs turned into small business owners to derive the causes of success of start-ups. Firstly, studies regarding start-up failure were exposed and analyzed. Two studies presented similar findings for startup failure reasons, with running out of capital in first position and no market need on second position. However, the third study, based on the same two datasets arrived at a different conclusion, ranking first place No or Wrong Business Model

and second place Lack of Business Development, next following the two usual suspects in the usual order (no cash and no market for product). This may point to the fact that a bad business model may be the consequence of a firm lacking capital and not being able to reach product market fit. This finding that is further confirmed with the analysis of the failures of the companies, each story of failure can be linked to a missing or mal-functioning link inside the business model of most of the enterprises. The contrary can be said about the interviewed entrepreneurs which all developed and put in practice a successful business model based on a well-defined vision for the company and a proven product/market fit. Interviewed entrepreneurs choose to grow organically which mitigates risks of failing to scale the business model and apply methodologies to aid in decision making and in the case of C product development. In conclusion, there can be a set of guidelines to follow when founding a business, which can translate roughly to:

1. Find your customers and your market
2. Find a suitable value proposition and insert it into a sustainable business model that contemplates the rule of thumb.
3. Prove the business model in the real-world achieving product/market fit
4. Once product/market fit is proven and the business model is validated, scaling is in order

One major task however will be to curb the excitement of the entrepreneur and focus its attention on what is important for the completion of each step (Maital & Barzani,2021).

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