

Introduction & Motivation

A structured engineering approach to start-up success can be used to identify and mitigate risk factors to improve the chance of business survival.

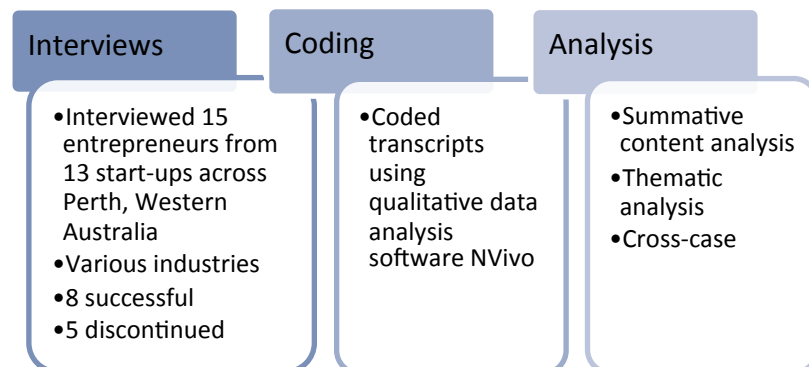
- Literature on entrepreneurship is focused on success stories. There is limited data on start-ups that did not succeed.
- Engineers have developed a structured approach to looking at asset failures but these processes have seldom been applied to non-engineering contexts such as start-ups.

Objectives

"Identify the key stages and barriers in the start-up process required to maximise the chance of success"

- Investigate the key stages in the start-up process by identifying the challenging points and critical junctions where entrepreneurs disengage.
- Use engineering methods to frame the start-up journey and identify risk factors that can be managed in order to provide an enhanced opportunity for success

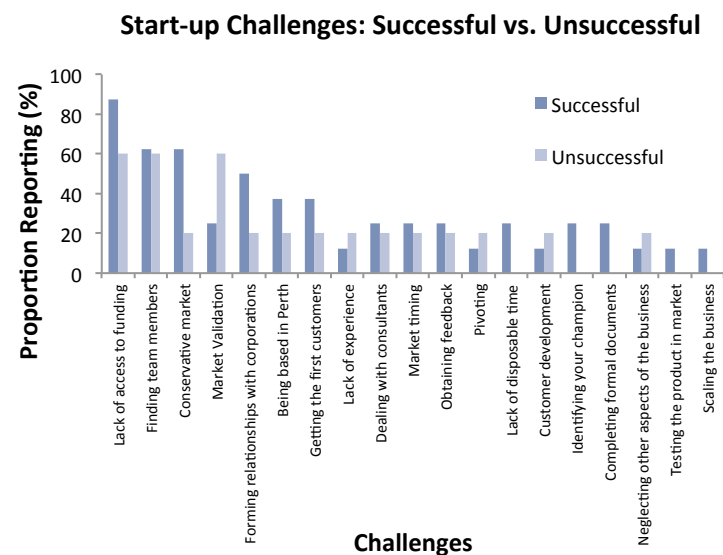
Methodology



Outcomes

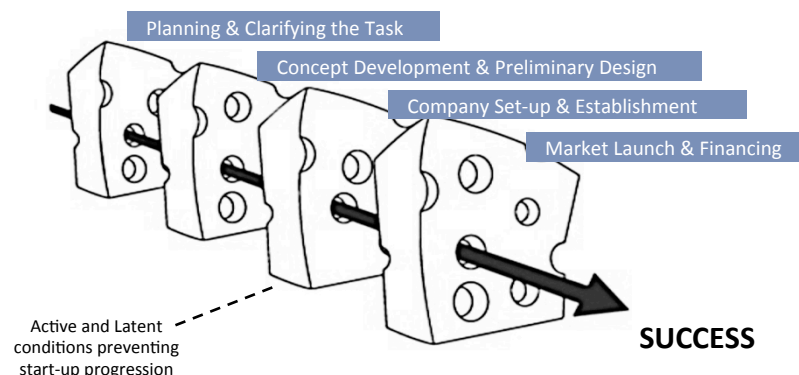
The most critical aspects and challenges identified by those that did not proceed were:

- Insufficient diversity in the skills of the founding team
- Lack of access to finance
- The conservative nature of the local market
- The inability to demonstrate a proof of concept in the marketplace.



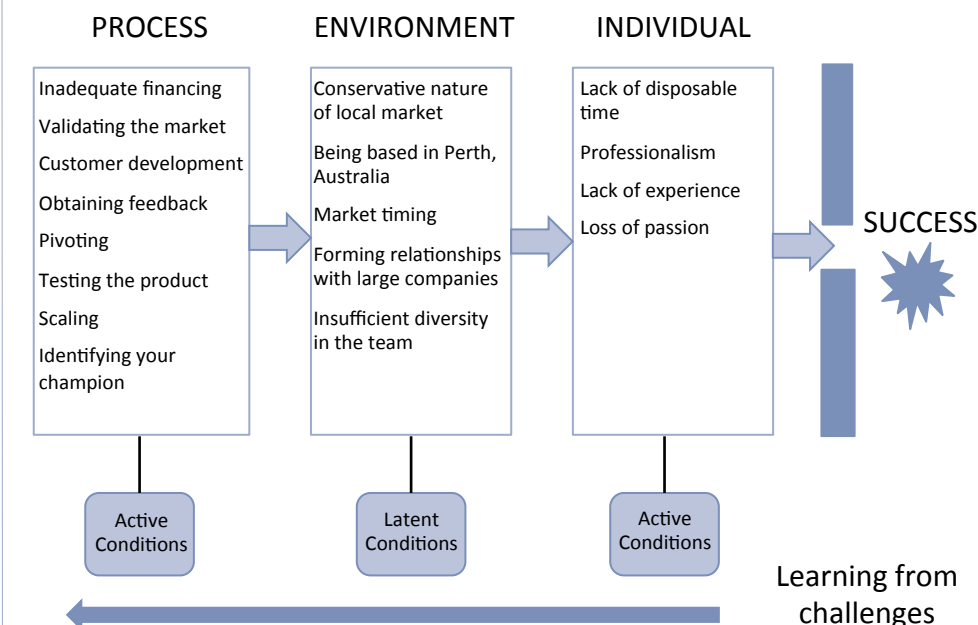
The findings were then used to create a 'Swiss Cheese Model of Start-up Success' where the outcome is desired. Holes in each stage arise because of active and latent conditions, which can be attributed to the challenges and barriers in the start-up process.

Swiss Cheese Model of Start-up Success



All entrepreneurial processes identified in the management literature outline the activities and stages involved but fail to identify the challenges that must be overcome within. Failure can often be attributed not only to the entrepreneur (active) but lay in the wider systemic organisational factors or in the external environment (latent). Entrepreneurs need a structured approach to identify the challenges and barriers they face and this model codifies the steps involved and considers different levels of the start-up process.

Holes (challenges) Identified



Conclusion & Recommendations

Analysing entrepreneurial challenges as well as potential causes of failure provides a powerful learning opportunity for entrepreneurs and can help future entrepreneurs avoid failure of a similar nature. This study offers valuable policy implications in entrepreneurship:

- Create a public database, backed by the government, outlining failed business ideas and reasons for failure in order to enable the learning from failure process and remove the stigma of sharing and talking about failures.
- Establish a rating system between entrepreneurs and big businesses to indicate the level of willingness to deal with start-ups and bring some accountability to the process.
- Provide incentives to encourage talented, young individuals with technical skills to join-start-ups.