

Key success factors for turning a high technology startup into a commercial success

High technology environments are complex, and the notion of startup success in such a setting is both practically difficult and theoretically vague. Our research suggests commercialization is key, and thus a framework is developed to achieve this.

I. INTRODUCTION

While there have been numerous research papers defining and discussing high technology startup success, there is a lack of unity what the recipe for success is. Due to lack of market orientation being one of the most common reasons for startup failure, combined with the essentiality of having a strong technology base in a high technology environment, there is an interest to study their intersection also due to confine previous research in this area.

II. CASE COMPANY & EXPERTS

The empirics in this master thesis is based partly on four interviews with employees at a semiconductor startup that goes through a growth journey in a high technology setting. The firm specializes in providing highly efficient low power semiconductor design IP that drastically lowers the power consumption for the complete chip in, e.g., sensors and *Wi-Fi* circuits. Moreover, two additional interviews were conducted with external experts, one from the business world and one from academia.

III. WORK PROCESS

Having completed two mutually exclusive literature reviews of theories and concepts concerning market focus and technology focus respectively, a hypothesized framework (v1.0) was developed solely based on material in the intersection of the aforementioned research areas. The hypothesized framework was later tested empirically by interviewing employees at the case company and external experts, leading to a revised framework (v2.0). Finally, the revised framework went through a quality assurance process based on seven criteria, leading to the concluding framework (v3.0) – also named ‘*The six factors of high technology commercial success*’ seen in Figure 1.

IV. FINDINGS

By studying the intersection between the two theoretical areas we were able to identify six apparent success factors, compiled into a guiding framework, including the complementary, but still prepossessing, elements of reevaluation over time and understanding of the startup’s own value proposition. Chronologically presented, the six factors are:

1. *Deploy a technological & economical audit, cherry pick time & cost-effective marketing analysis tools*
2. *Develop a capacity to absorb & filter external knowledge, scan the market frontier*
3. *Identify lead customers*
4. *Avoid marketing and technology myopia*
5. *Avoid hoarding & actively spread information*
6. *Capture tacit knowledge & seek new learning*

V. BENEFITS

While extensive research has been conducted in the discipline, the intention of this master thesis is to provide further depth into the transition from innovation to commercialization for a high technology startup by combining market and technology; a combination not studied before based on the extensive research conducted by the authors. Moreover, the compiled framework can be utilized by any high technology startup to identify which of the six factors have or have not been fulfilled by the incumbent, hence acting as a supporting tool on its journey to develop a market and technology focus.

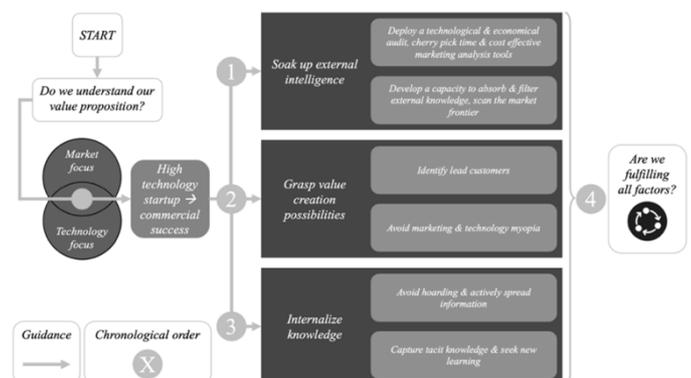


Figure 1: The concluding framework (v3.0) named ‘*The six factors of high technology commercial success*’