

Critical Success Factors for Technology Entrepreneurship: Are These Factors Different for Non-Technology Startups?

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ABSTRACT

Investors invest in startups using many different models and criteria. However, does investing in technology startups require different analysis than investing in non-technology startups? To determine this answer, our strategy was to analyze published research which dealt with success and/or failure factors in technology entrepreneurship specifically and then in entrepreneurship in general, and use frequency analysis to determine the critical success factors mentioned for both categories and then analyze the results for differences. Unfortunately, we found very little research specifically focused on technology entrepreneurship success/failure factors, so we chose as a reasonable proxy research on investment criteria of venture capitalists, who typically invest in technology startups. We then analyze papers that dealt with success/failure factors in entrepreneurship in general. With these two sets of data, we analyzed for differences.

Preliminary findings seem to indicate that there are three key differences between critical success factors for technology versus non-technology startups. These differences can be grouped under three broad areas – product development, human resources, and access to capital. Under product development, technology start-ups have to be able to successfully develop products (hardware or software) under great time pressures and deliver a reasonably high quality product with high level of technical support, ie, it has to work and it can't crash, and when it does crash, there has to be very responsive technical support. Non-technology startups, such as restaurants or retail stores, have a less pressing need for high product functionality, and product quality is a more subjective measure versus the objective measure of a product crashing. The second area is human resources, which deals with finding, hiring, and retaining qualified employees who can withstand the stresses of a startup environment. This issue is most often visible inside the sales organization, where there is typically high turnover of salespeople, including the vice president of sales. This often results from the pressure investors put on the sales organization to perform when quite often the business model is still under flux and being refined, ie, the product is still changing along with the pricing model and customer value proposition. The other critical human resources issue is hiring seasoned technical employees, specifically convincing them to leave the safe haven of cushy development groups in large corporations to enter the rapid and stressful environment of a startup. Non-technical startups have a much easier time in hiring and managing employees since their needs are substantially less rigorous. The last area of access to capital

speaks to the need to balance frugality with rapid-growth and scalability. Technology startups rarely grow in a linear fashion, so when sales traction begins to accelerate, it typically does so exponentially. However, predicting when this acceleration will occur is very difficult. As such, while a technology startup needs to be frugal with its resources, it also has to be able to quickly draw upon financial resources under very short notice. Non-technology startups can also consume substantial cash as it grows, but the typical rates of growth for technology firms are such that it needs the cash faster than the typical non-technology startup, and thus a non-technology startup has more breathing room to plan for additional cash infusions.

The application of this research is two-fold: first, for technology investors – having a better understanding as to the success and/or failure characteristics of technology startups will hopefully lead to better investment decisions. Second, for the technology entrepreneur(s) – knowing the main issues that their nascent firms will face will help guide in management decisions to increase the likelihood of sustain success.