CTAN ANALYSIS OF FAILED COMPANIES 2006-2016

November, 2017

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CTAN And Financial Metrics

- CTAN collects financial metrics on all investments since it was founded in 2006. We have more financial data of our portfolio than probably any group in the country
- Through 2016 CTAN has invested $83M in 142 companies
- Our portfolio has achieved 23 exits with $54M in returned capital on $8.5M in investments or 6.3x or 54% IRR or 35% IRR if you also add the failed company investments ($7.2M and 36 companies)
- As of December, 2016 the total $83M invested has a realized and unrealized valuation at $238M or 2.88x
- The following material is based on information gathered on companies that have gone out of business

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Background and Objective

- 36 CTAN companies have failed/gone out of business (142 total investments from 2006-2016)
- CTAN Board wanted to see if there were lessons to be learned from these companies
- Survey designed to look for reasons for failure
- 15 common reasons for failure utilized (list from CTAN experience/data and national angel studies)
- Study methodology designed and implemented with help from Michaela Lindsay, Venture Fellow intern from McCombs School at Univ. of Texas

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Study Methodology

- A 3 question survey sent to the lead investor in each of the 36 failed companies
- Lead investor asked to list top 3 causes of failure from list of 15 (anonymity promised so results aggregated)
- Primary reason received 3 points, secondary 2 points and tertiary 1 point.
- Points added up and then compared
- For companies with more than one respondent we divided points by the number of respondents

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Survey/Feedback Results

Cause of Failure	Weighted Points Received
Wrong Team / Poor Execution / Strategy	28
No Market Need	22
Burn Rate Too High/ Ran Out of Cash	20
Weak Product Differentiation	19
Poor Sales/ Marketing (aka Engineering Centric)	15.5
Inability to Scale (i.e. Companies with "match.com" Platforms or Production/Manufacturing Issues)	12
Business Model/ Price vs. Value	11.5
Technical Problems/ Could Not Be Reliably Made	9.5
Failure to Pivot/ Find Product-Market Fit	9
Founder Fallout and/or Investor Fallout	8
Outcompeted/Underestimated Competitors	6
"Leapfrogged" by New Technology	3.5
Regulatory Hurdles (e.g. FDA)	3
Failure to Focus	1
Dishonest Founder(s)/Mislead Investors	1

Key Learnings

- 53% of all the votes were for the following:

Wrong Team / Poor Execution / Strategy	17%
No Market Need	13%
Burn Rate Too High/ Ran Out of Cash	12%
Weak Product Differentiation	11%

- "Wrong Team" when combined with "Failure to Pivot/Find Market Fit" rises to 26% and the total for the 4 goes to 62%

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Company X

High-tech Fitness Machine

Reasons for investment failure:

1. Wrong Team / Poor Execution / Strategy*
2. Burn Rate Too High / Ran Out of Cash*
3. Failure to Focus

*In "Top Culprits" list

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Company Y

Medical Device

Reasons for investment failure:

1. No Market Need*
2. Dishonest Founder(s) / Misled Investors
3. Poor Sales and Marketing

*In “Top Culprits” list

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Company Z

Software enabled Online Community

Reasons for investment failure:

1. Wrong Team / Poor Execution / Strategy*
2. Burn Rate Too High / Ran Out of Cash*
3. Poor Sales/Marketing

*In "Top Culprits" list

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Questions

1. Could more thorough due diligence have uncovered the causes of failure before investment?
2. To what extent were the problems "people" problems and to what extent were they "business" or "technical" problems?
3. Could different investment terms have changed the outcome or mitigated the damage?
4. What could you, as an investor, have done differently to help the company? Could you have changed the outcome?
5. If you could go back in time and talk to yourself before the investment what would you say?

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