

Crossing The Barriers In Creating High-Tech Ventures: A Case Study

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Abstract

This study deals with how the high-tech ventures originated by foreign entrepreneurs of developing countries can be incorporated successfully in the USA by overcoming managerial, technical, and cultural barriers. An in-depth case study on a new semiconductor firm has been carried out. The case study shows the process how a Korean technical expert could overcome barriers with a Korean-American management expert in incorporation and fund raising, and draws some practical lessons for entrepreneurs. This study identifies some pitfalls and guidelines in collecting and organizing information to prepare a business plan in comparison with observed reality of the case firm. In this case, it took one month to finish the complete business plan by the team with the help from Stanford libraries. The plan was well received by the 36 leading venture capitalists in the Silicon Valley contacted by the case firm, but all venture capitalists without exception turned it down, with several reasons such as lack of sample and standard. Finally, the company succeeded in fund raising from one interested corporate partner. In addition, this study presents seven lessons that will be important in crossing the obstacles for the successful incorporation and growth.

Key Words: High-tech Venture, SMEs, Partnership, Entrepreneurship, Silicon Valley

Introduction

New venture creation has become a world phenomenon recently, and many countries are trying to boost entrepreneurship as an engine of economic development. With the trend, Silicon Valley is getting a spotlight as a role model of new business development, especially for information processing industries. Many ethnic entrepreneurs -- especially Indians and Chinese -- have incorporated at Silicon Valley successfully. Failure is a rule, however, and there are many barriers ethnic entrepreneurs should overcome to be successful. This paper deals with an in-depth case study of a new ethnic semiconductor firm that was incorporated in Silicon Valley with successful funding from a partner corporation. The case study shows the process how a Korean technical expert could overcome barriers with the support from a Korean-American management expert in incorporation and fund raising, and draws some practical lessons for ethnic entrepreneurs.

Literature Review

As one of key factors for venture success, business environment -- more specifically,

“habitat” – and network has emerged in several researches. Miller (1999) explained ten critical elements of Silicon Valley’s habitat as follows:

- 1) Knowledge intensity the only path to quality job generation
- 2) Presence of high quality work force
- 3) Highly mobile labor force
- 4) Business climate that rewards risk taking and does not punish failure
- 5) Open business environment – “It’s a positive game”
- 6) Community dynamics of collaboration between business, governments, and the independent sectors (labor councils, universities, foundations, etc.)
- 7) Ready acceptance of diversity and youth in institutions and networks
- 8) Presence of venture capital industry that understands high technology
- 9) Presence of research institutes and universities that interact effectively with industry
- 10) High quality of life in the community

Saxenien (1994) coined the concept of “regional advantage” to explain the differences among high-tech industrial regions. According to her, Silicon Valley has a regional network-based industrial system that promotes collective learning and flexible adjustment among specialist producers of complex related technologies. The functional boundaries within firms are porous in a network system, as are the boundaries between firms themselves and between firms and local institutions such as trade associations and universities.

The network-based nature of Silicon Valley creates big barriers to foreign entrepreneurs who aim to start business in Silicon Valley. Because of well-established habitat and growth potential in Silicon Valley, however, many foreign entrepreneurs have attempted to start business in Silicon Valley. Some was successful, and many failed. In her recent work, Saxenien (1999) compared several ethnic groups of entrepreneurs in Silicon Valley, and pointed out the rapid growth of Indian and Chinese (IC) communities. They are making their own networks inside Silicon Valley and internationally.

In Silicon Valley, everyone understands that innovation is the only way to create new wealth – both corporately and individually. Silicon Valley is based not on resource allocation but on resource attraction – a big crucial distinction. If an idea has merit, it will attract both money and talent immediately (Hamel, 1999). Therefore, Silicon Valley is a playing ground of new opportunity for entrepreneurs with attractive technical ideas.

But the process to reach a success requires many steps and needs to overcome several barriers. Especially foreign entrepreneurs should overcome cultural differences and language problems, and adjust into new business protocols and mindset. To guide these processes, Nesheim (1997) suggested 14 interrelated startup process of the successful new venture creation and development with detailed explanation on each stage. He mentioned many myths and risks on new venture creation. Also Sherwin (1998) suggested informative guidelines that entrepreneurs should think about in preparing business plans.

In spite of several research results on ethnic entrepreneurship from the economic and social viewpoints such as Butter & Greene (1997), there are a few research results focusing on

foreign entrepreneurs doing business at Silicon Valley. This paper focuses on this issue and attempts to identify approaches to overcome various barriers.

A Case of New Venture Creation Based on a Concept

Background of the Case

On January 1997, Dr. A visited Korea and gave a speech on the subject of venture capital business in Silicon Valley. After the presentation, Mr. B approached him and asked for help in securing funding from Silicon Valley sources. Dr. A requested information on: 1) management or key team members, 2) summary of technology, 3) the reason why he want funding from Silicon Valley, and 4) business plan if any.

Dr. A reviewed information provided and found that all the team members were a Ph.D., MS and BS holders and nobody had relevant experience in management, but the technology on semiconductor material looks pretty good. Also, they did not like investor-owner concept in Korea, and they wanted to start business in Silicon Valley. Even if there was no business plan except a several incoherent business idea on technology and future market, Dr. A became interested in that technology. He respected their young dream, spirit and persistence, and he decided to commit to assist in funding raising from Silicon Valley sources.

Upon returning to the US, he spent two weeks at Stanford libraries both engineering and business schools to verify the technology and check out competitors. He reviewed existing technologies and related publications and patents. In addition, he talked with professors and other experts in material science. The result of preliminary review was promising. He checked out competitors. Surprisingly, there was only one company in Japan in that area.

Dr. A had extensive experience in managing high technology companies over last 25 years in Silicon Valley, and Dr. Kim had an expertise in new promising technology. They could complement each other in preparing the business plan. In communicating with Mr. B, however, Dr. A noticed that Mr. B had serious language problems. Lack of English proficiency of the Korean entrepreneur was a big barrier that makes business communication very difficult. Fortunately, this barrier could be overcome because Dr. A was bilingual and served as a contact point in all business communication.

Observation 1: Lack of English knowledge can be a big barrier for foreign entrepreneur to make successful incorporation in the US.

Observation 2: Formation of the founding team with complementary assets is a key solution to overcome several barriers faced by foreign entrepreneurs.

Business Plan Preparation

In the process of preparing business plan, Dr. A requested to Mr. B the following information.

- 1) Technology and technology background

- 2) Market and market background
- 3) Sales strategy
- 4) Competitors
- 5) Patents and other barriers to entry
- 7) Management background (resume)
- 8) Financial information:
 - Current and pro forma balance sheet
 - Projected monthly and quarterly income statement
 - Projected five year income statement
 - Monthly Cash Flow Projection
 - Valuation Statement
- 9) Publications by founders
- 10) Results of market study

Due to the lack of English and understanding of business terminology, however, this request of information was completely new to them. Dr. A decided to write the business plan by himself.

Business Plan Writing

It took one month to finish the complete business plan with the help from Stanford libraries. The plan was well received by all the leading venture capitalists in the Silicon Valley.

Incorporation and H1-B (Working) Visa

Company A was incorporated in the State of Nevada:, because of following reasons. In Nevada, 1) it need no lawyers to incorporate, and 2) the cost of incorporation is just about \$600, and 3) there are no state income taxes and 4) annual franchise tax is just \$80.

For initial capitalization, 20,000,000 shares were authorized. At beginning, 10,000,000 shares issued at \$.001 per share. Founder who is entitled for 1,000,000 shares paid \$1,000 for 1,000,000 shares.

Initial valuation of the company has become \$10,000,000 in 1999. Dr. A sought \$3,000,000 for 30% of the company - 3,000,000 shares at \$1.00 per share. All founders became millionaires at least on papers in six months. Once the samples are being produced, the shares will be sold at a minimum of \$2.00 per share.

Founders being engineers and scientists received H1-B visas after 4 months after applications. The US INS (Immigration Naturalization Service) requires a minimum of B.S. degree in engineering or science disciplines in order to be qualified to receive H1-B visa. The visa is good for six years. Meantime, the founders can apply permanent visas. Therefore, Dr. A applied for H1-B Visa to bring engineers from Korea.

140,000 quota ran out for 1999 and new applicants have to wait until October of 1999 for the new quota. Immigration offices did not readily recognize Korean university graduates and Dr. A had difficult time to explain them. Legal cost of each application was about \$1,500.

Fund Raising

Dr. A approached typical venture capitalists in the Sand Hills Road where the majority of venture capitalists are located. These include: 1) Asset Management, 2) Bay Partners, 3) Bessemer Venture Partners, 4) Charter Venture Capital, 5) EG&G Venture Management, 6) Glenwood Management, 7) Glynn Capital Management, 8) Hambrecht & Quist, 9) Harris Roja Corporation, 10) Kleiner Perkins Gaufield & Byers, 11) Matrix Partners, 12) Mayfield Fund, 13) MBW Management, Inc., 14) Menlo Ventures, 15) MK Global Ventures, 16) Paragon Venture Partners, 17) Peregrine Ventures, 18) Sierra Ventures, 19) Sutter Hill Ventures Technology Funding, 20) Technology Strategies and Alliances, 21) Technology Venture Investors, 22) Third Millennium Venture Capital Limited, 23) Transtech Venture, Inc, 24) U.S. Venture Partners, and 25) few other venture capitals companies. Also he contacted corporate partners in Japan, such as: Hitachi Limited, Hitachi Cable, Hitachi Metal, Oki Electric, Mitsubishi Chemical, Furukawa Electric, Showa Denko, Sony Central Lab., Stanley Electric, and TechnoVentures of Japan.

Observation 3: All Venture capitalists without exception turned it down. The reasons were: 1) lack of sample, 2) lack of standard (because they cannot judge) on universities and job experience, and 3) lack of Anglo-Saxon background management. Also venture capitalists in Silicon Valley typically do not fund material supplier's companies.

Observation 4: Universities in developing countries are not readily recognized by world business communities. After working with the founders, Dr. A concurred the impressions of international communities. In many cases, graduates from universities in developing countries are not in par with international standards. Certain frankness and straightforwardness is lacking in the Korean engineers and scientists. Especially limited experience is a big obstacle.

Also corporate partners in Japan rejected the offer, with reasons such as: 1) lack of sample, 2) lack of evidence, and 3) lack of standards on universities and job experience.

Observation 5: Japanese corporate partners require samples to show or at least evidence to prove the technology.

Fortunately, one corporate partner from Germany showed interest in the offer. Founders of the case company made first presentation in November 1998 in Germany, and it was successful. Also they presented secondly in December 1998 in Germany, and the results were very satisfactory. Third presentation was made in January 1999 in Palo Alto, USA and patents issues were discussed.

Fourth presentation was made in March 1999 in Palo Alto, and milestone and funding requirements were discussed. The case company's law firm drafts an agreement in February 1999. Agreement reviewed in details in March 1999.

Agreement reviewed at least three times on technology licensing issues and marketing rights. Also agreement reviewed again on potential other investors and competitors. Agreement reviewed again in April and May 1999 on the licensing, marketing rights, price per wafers, future

supply agreement. At last, final agreement signed on May 1999.

Observation 6: Corporate investor who understands the value of specific technology can be a good source of financing for entrepreneurs without proven records and samples. To make fund raising successful, however, founding members or friendly sources should provide a company with seed money in advance.

Observation 7: Start-up companies should have good management team who recognize the importance of good lawyers. Keys of good lawyer are that not only the lawyer do legal work but also seek why other party wants certain conditions. Good lawyers are hard to find even within best law firms.

Conclusions and Discussions

This case draws some conclusions. First of all, universities curriculums in developing countries have to be updated to graduate more competent engineers and scientists. Secondly, proficiency in English is a MUST to compete in the world. Thirdly, U.S leads in all aspects of business not only in technologies but also law and accounting.

Successful high-tech startup based on technical concept in Silicon Valley is not easy. This time, however, there is a proof or samples of the new technology startup by Korean technologists in the Silicon Valley. Concept alone is sometime difficult if they are from Korea due to lack of standards in university education or job experience that can be compared with U.S. However, with a partnership with creditable and experienced management staff, the obstacles can be overcome.

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