Extended Abstracts of the 2000 International Conference on Solid State Devices and Materials, Sendai, 2000, pp. 2-3

P-1 (Plenary)

The Relationship between Stanford and Silicon Valley: a Dean's Perspective

James F. Gibbons
Dean, School of Engineering, 1984-1996
Stanford University

In 1988 Silicon Valley revenues were $40 billion dollars. Stanford-based companies were responsible for $25 billion of that total. In 1996, Silicon Valley revenues were approximately $100 billion, and Stanford-based companies were responsible for at least $65 billion of it. This represents an average compound annual growth rate of approximately 12.5%. By contrast, the compound annual growth rate for the 8 year period from 1968 through 1976 was approximately 6%.

This dramatic difference in growth rates can be attributed to the development of new technologies and the creation of new companies that were formed to commercialize them. This paper is concerned primarily with the factors that lead to the formation of a successful high-tech start up company, and the role that Stanford plays in that process.

Interviews with the CEOs of a large number of companies in Silicon Valley suggest that four main factors are important in creating a successful start up company. These are: (1) a first product with a significant market potential, preferably protected by intellectual property that can serve as a barrier to entry for competitors; (2) a high quality team of people that are capable of bringing the product to market quickly; (3) a source of sufficient capital to support that development, and (4) technical, social and educational infrastructure that allows the new company to keep a sharp focus on only those things that are strategic for its development.

Those factors will be described in this paper, and Stanford's role in both the creation of successful startup ventures and in their subsequent growth and development will be outlined..