



A Strategic Overview of the Silicon Valley Ecosystem: Towards Effectively “Harnessing” the Ecosystem

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1. Introduction

Silicon Valley has produced successive waves of disruptive technologies and innovations that have profoundly affected the world since the invention of the transistor. Firms that began as startups revolutionized the world of computing, unlocking a vast array of possibilities for how computing power can be applied to all areas of civilization and ushering in the digital information age we currently live in. Firms including Hewlett Packard, Intel (microchips), Western Digital (Hard disks), Sun Microsystems (Servers and Workstations), 3Com (data networking) Cisco Systems (Internet networking equipment), Oracle (databases), and Apple were all originally startups that shifted the very basis of computing technology. Biotech innovations were driven by firms such as Genentech, and more recently, the region has spawned Internet and services giants such as Yahoo!, Google, eBay, PayPal, Facebook, Twitter, Salesforce, and Evernote. New firms continue to disrupt a broad variety of industries, such as Tesla (automobiles), GoPro (video recording), Cargotec (port management systems), AirBnB (hotels and accommodations), Uber (taxis and transportation), Flipboard (media) and there are strong competitors in area such as solar (Sun Power), medical devices, and other areas.

As Japan looks to transition to the next stage of economic development, which will necessarily rely on innovation and productivity gains in pursuit of high value added activities, lessons from Silicon Valley are likely to become more critical than ever.

Countries around the world have attempted to duplicate Silicon Valley’s “ecosystem” of successful innovation. However, almost all have failed.¹ The time has come to *not simply try to copy* aspects of Silicon Valley, *but also make use of the Silicon Valley ecosystem itself* by becoming active participants. Silicon Valley continues to produce disruptive innovations, and many will severely disrupt existing business models in Japan in a variety of industries, ranging from media to automobiles, to other areas we do not expect yet. Taking the metaphor of Commodore Perry’s Black Ships that sailed into Edo Bay in 1840—the next “black ships” that will disrupt industry are likely to come from Silicon Valley, so *instead of waiting for the black ships to arrive, Japan should go to where they are being built*—to Silicon Valley.

Large Japanese firms have a long history of having offices and some form of presence in Silicon Valley. However, overall, they have faced more challenges and successes in making use

¹ Deitch, K. and S. Deitch (2002). The boulevard of broken dreams. New York, Pantheon Books.

of Silicon Valley, and a core hurdle has been becoming an integral part of the innovation networks.

This report is a first step in finding solutions for *why* Japanese firms have had difficulty making use of Silicon Valley, with *implications for what they can do*. This report goes beyond simply looking at how Japanese firms have behaved in Silicon Valley. Nor is it simply a comparison between Silicon Valley and Japan. Rather, it is focused on an in-depth understanding how Silicon Valley operates and how it developed, with aggregated and generalized experiences of Japanese firms in Silicon Valley in order to search for lessons for Japanese firms, as well as the government.

There has recently been a surge of Japanese startups and young firms entering Silicon Valley. Startups such as SmartNews are becoming well known even outside of the Japanese community. Firms that are relatively new, such as Rakuten, DeNA, and Softbank are also actively increasing their presence, expanding rapidly through M&A. Large incumbent firms such as NTT have recently increased their focus on Silicon Valley, Canon runs its global non-printer and camera division out of Silicon Valley, and aggressively successful firms such as Omron and Komatsu are entering (or re-entering) with renewed focus and purpose. Everybody is eager to learn, and many are looking for information. This report provides a solid basis upon which to build expectations and strategies. Much of the useful information about Silicon Valley has been locked inside academic publications that have not been simplified and digested for mass consumption by busy people, so a core aim of this report is to fill that gap.

This report first provides a detailed overview of Silicon Valley, providing a unique vantage by highlighting the role of Japanese firms in the development of Silicon Valley's ecosystem. It looks at the financial systems, diversity of employment, roles of government, and university-industry ties. In the final section it provides an overview of key challenges facing Japanese firms, which constitute the basis of a further research agenda.