

Why Japan Needs Start-Ups

By Yonekura Seiichiro and Michael J. Lynskey

Introduction

There has never been a more exciting period in which to conduct business. Innovations in the development and application of new digital multimedia technology and the ubiquitous Internet are revolutionising business practices throughout the world, with repercussions for organisational structure and ways of working. But while these changes have been taking place, Japanese business is mired in a prolonged recession. Leading Japanese companies that were formidable competitors during the 1980s and early 1990s have lost their competitive edge in the so-called Heisei Recession. Faced with severe price competition from emerging Asian competitors in hardware manufacturing, Japanese companies seem to be having difficulty in establishing a competitive foothold in such fields as applications software and businesses that deal with new media such as the Internet. Furthermore, Japanese have gradually lost confidence in the business practices that were the bulwark of the post-war era, such as life-time employment, the seniority-based wage system, consensus decision-making, company-based unionism, the main-bank system and close government-business relationships. Even Japan's famous *keiretsu* system is weakening as once strong business-to-business bonds are unravelling.¹ In short, the limitations of the 'Japanese business system' are becoming glaringly obvious at the start of the 21st century.

While Japan is undergoing a sustained period of self-doubt, US businesses are looking extremely confident and entrepreneurial, nowhere more so than in Silicon Valley. This 50-mile stretch of northern California is home to more than 7,000 electronics, software and Internet companies and, on average, 11 new companies start up there every

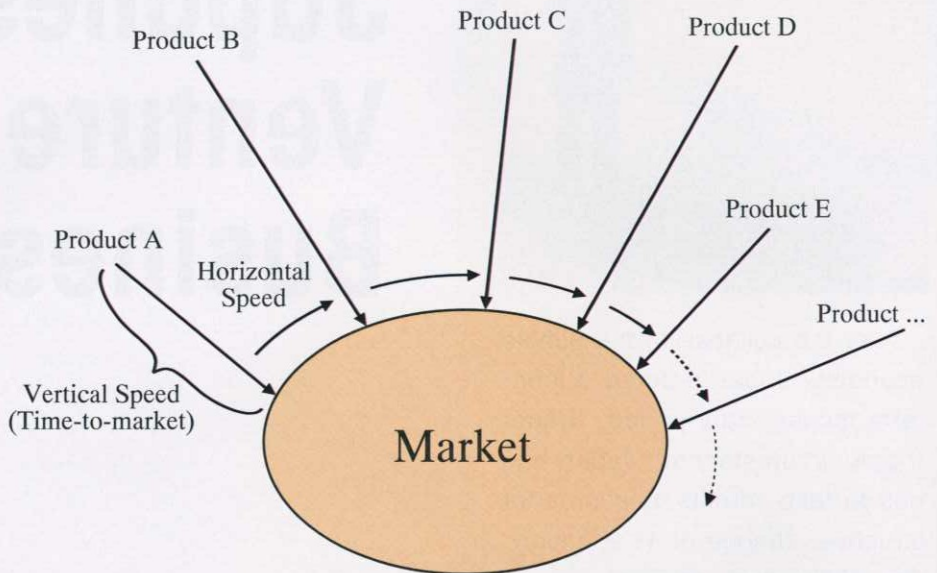


Figure 1 : Speed in vertical progression and lateral transition - shortening of vertical speed (time-to-market)
Source : Yonekura

week. Such firms are supported by an elaborate infrastructure providing all the services necessary to launch a business: financiers, lawyers, engineers, web developers, recruitment specialists, builders, marketing personnel and couriers. Stanford University and the University of California at Berkeley act as fertile breeding grounds for innovative ideas, and funding is readily available to commercialise such concepts. In the first half of 1999, Silicon Valley attracted \$4.18 billion in investment from high-tech venture capital funds. If it were a country by itself, Silicon Valley would rank seventh in the world in terms of GDP. Bearing this in mind, Japan has good reason to look to Silicon Valley in order to understand the essence of the new business model it presents. As part of that business model, the questions we want to address here are why does Japan need start-up firms, and how do we support such ventures?

Rapid Changes in Technologies and Markets

It is perhaps no exaggeration to say that the rapid advances in information technology have induced socio-economic changes on a par with that of the industrial revolution of the 18th century. Two aspects of the IT revolution are worth stating. Firstly, the pace of change in the underlying technology and the market has been unprecedented. In the late 1980s, no one could have anticipated the extent to which the Internet would drastically alter business with the advent of e-commerce. In 1998, 140 million users around the world were accessing the Internet. Of those users, nearly half used the Internet from their homes, with medium- and small-size business access points making up 21 percent and 12 percent, respectively. Total sales over the Internet reached \$43 billion in 1998, and are expected to reach \$1.3 trillion by 2003, at which time there will be 500 million Internet users. In

addition to the scale of change, changes in technological development are occurring at an unrelenting pace. The life cycle of a personal computer, for example, is now only three months, since that is the product life cycle of a computer's CPU. Along with this technological development, market needs are also changing rapidly. Unexpected products hit the market and are successful, such as the Tamagochi or Pokémon. The second point worth mentioning is that these changes in technology and markets have brought about new dimensions to market competition, organisational structure, and resource accumulation.

Agile Competition

Owing to these rapidly changing market and technological needs, establishing a *de facto* standard in the shortest possible time is the key to success. In order to do so, rational, long-term planning has given way to dynamic reaction as the primary tool for responding to market needs. Products that are the first to become widely accepted by establishing a *de facto* standard commonly surpass in the marketplace those products that are technologically superior or more thoroughly planned. Rather than the level of completeness of the product, speed and the multiplication of the product itself have become more important elements. This is referred to as 'network externality', and it accounts for limitations in the effectiveness of Japanese government-business relationships in steering industrial policy or in administering governmental guidance. Such practices worked admirably well when Japan had clear business role models to emulate or it was engaged in catching up with the leading industrial nations. However, as epitomised in the failure of the high-definition television project, rational planning sometimes fails, and when it does, Japan's conventional organisational setting is too inflexible to be agile and adaptive. The changed nature of the business environment compels businesses to not only shorten product times to market, but also to

continually develop products or services based on new concepts. It has become not only a matter of shortening vertical lead times, but also quickening horizontal reaction. In other words, speed of transition to different product concepts has become a necessity.

The description of this type of competition as 'agile competition' is indeed apt.² Japanese businesses that had demonstrated their overwhelming strength in vertical competition have been exposed to weakness by their lack of horizontal agility. The reason is that agile competition requires a change in (a) organisational structures, (b) capital procurement, and (c) resource accumulation. This applies particularly to Japanese companies.

Organisational Change: From Internal Accumulation to a Virtual Network

In order to satisfy technological and market needs that change at a bewildering pace, it has become difficult to internally accumulate and retain all the resources necessary for

product development. There is hence a need to focus on internal core competencies and rely on inter-firm dynamic co-operation to offset risk and development costs. The business co-operative pattern has become one of a loose network or virtual type arrangement, whereby each actor in the network combines its own core competence. An example of this is DirecTV, which established a new digital satellite broadcasting business.

DirecTV was a new business launched by the Hughes Group, a munitions company, of which Hughes Electronics plays a central role. The company made preparations for the end of the Cold War, which would see munitions demand decrease significantly, by reassessing core competencies for the post-Cold War era. As a result, the two core competencies the company recognised were satellite technology and digital compression technology. Digital satellite broadcasting was thought of as a possible business that would effectively utilise these two core technologies. However, in order for

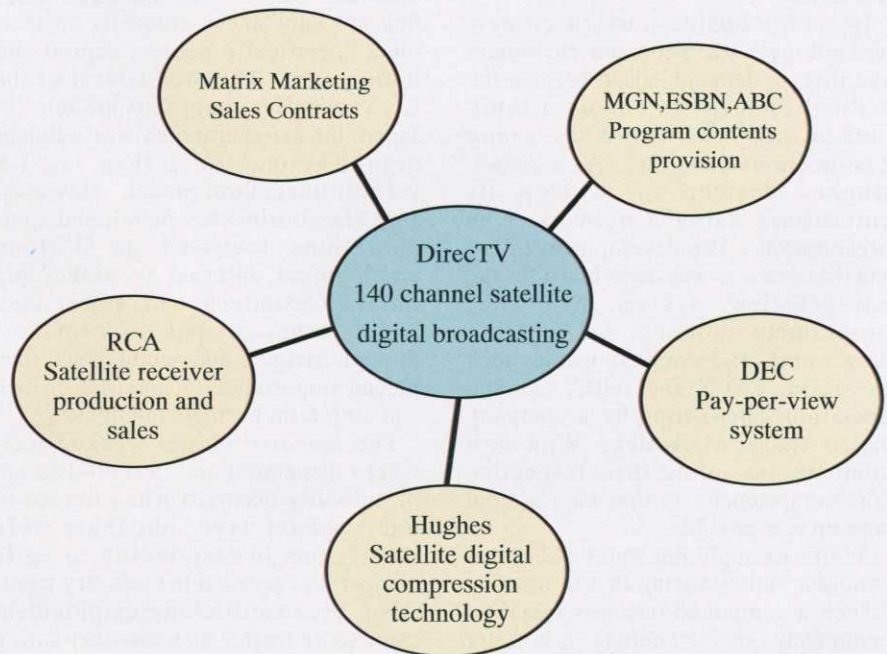


Figure 2 : The formation of DirecTV

Source : Based on discussions with the president of Solelectron, Mr. Nishimura.

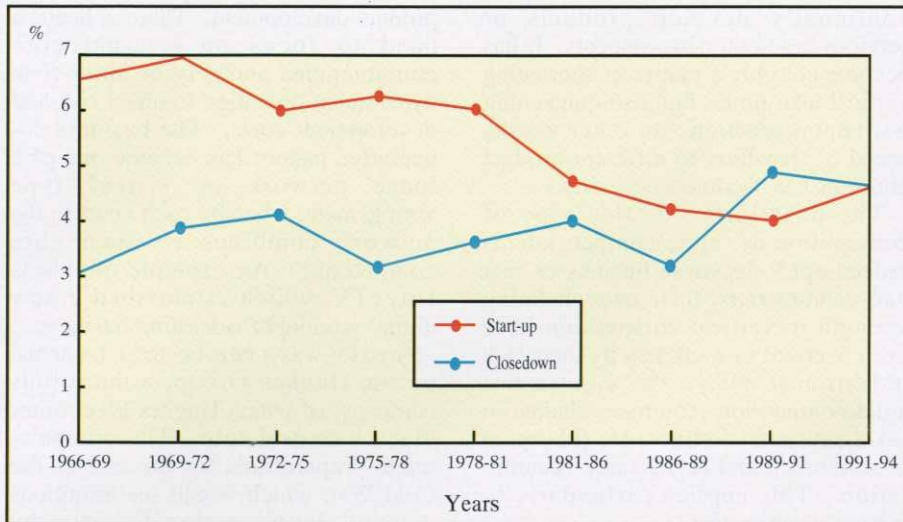


Figure 3 : Change in Start-up and Closedown Rates of Businesses in Japan
(yearly average, across all industries)
Source : Management and Coordination Agency

Hughes Electronics to launch such a venture, development in numerous other areas was deemed necessary. Such areas included receivers, a system to individually charge each viewer, programme contents spanning over one hundred channels, and customer marketing.³

In such a business based on new technology with dispersed customers and diverse demand, speed became the critical element to enable a rapid launch and to secure as many customers as possible. As a result, Hughes decided to develop its enterprises using a network type organisation. The development of the satellite receiver was done by RCA, the pay-per-view system by DEC, programme contents by existing programme production companies such as MGM, ESPN and ABC, and the operation's marketing by a company called Matrix Marketing. With each company providing their respective core competencies in this way, a rapid start up was possible.

As this example illustrates, it became common understanding that in order to launch a compound business based on completely new technology, it is faster and more effective for each member in a network to contribute their respective strengths, rather than to depend on the

company's own internal accumulation. Thus, technological and market changes have undermined the traditional business paradigm, as advocated by scholars such as Chandler and Penrose. This explained how business operates by accumulating in a balanced way management resources that are unbalanced elements on their own, specifically people, capital and information. This was typical of the US vertically integrated model. In Japan, the *keiretsu* model was a lighter organisational form than the US vertical integration model. However, Japanese businesses developed their operations focussed on lifelong employment, internal personnel and internal resources, and, rather than adding other companies' resources through mergers and acquisitions, they placed importance on internal growth and long-term business relationships.

The *keiretsu* model worked well where dispersion and decentralisation of authority occurred when limited to one industry type, but there were limitations in responding to agile competition across other industry types. Also, because lifelong employment came to be treated as sacrosanct during the post-war success period, there was opposition towards restructuring and re-engineering of operational

processes, which in turn impeded many large businesses from utilising these methods to re-evaluate their core competencies. This is where Japanese firms fell behind US ones, which undertook substantial restructuring and were aided by a highly mobile labour force.

Venture Capital

In a situation where technology and the market is dispersed, rather than succeeding by rationally planning something and then systematically executing it, creating new knowledge while repeating the process of trial-and-error over and over again involves a greater chance of eventual successes. This means that in order to succeed in a world where one is uncertain what one will achieve, to have many attempts is the ultimate precondition. However, the patterns of resource accumulation and financing that have been employed up until now have not permitted such trial and error. For that reason, a new mechanism is required.

The finance of business in the traditional 20th century business model involved starting with little capital, internally reinvesting, and taking several years to build up the business with the ultimate aim of going public. However, at this speed it is not possible to cope with the type of rapid change discussed above. It becomes necessary to increase the frequency of trial and error. This has been made possible by new venture capital finance and incentive tools such as Nasdaq Japan, Mothers (Market for High Growth and Emerging Stocks), eVentures (a 10 billion yen Internet fund) and stock options. These have helped prepare the ground for the emergence of more e-venture businesses in Japan. But what is also needed is a change of attitude that permits entrepreneurs to make mistakes on the road to success. In the United States, and Silicon Valley in particular, business failures are cancelled out if at some point one of an entrepreneur's trial-and-error enterprises can acquire a large multiple on the investment capital through an initial public offering. This mechanism was

responsible for many types of businesses attempting new venture development repeatedly. It would be no exaggeration to say that the core success of the Silicon Valley model was the completion of a system that enabled numerous attempts at trial and error. Since the 1980s, a positive feedback cycle was created through this mechanism supported by large financial institutions and institutional investors as providers of capital into Silicon Valley. As a result, the new business opening ratio and closing ratio in the US was over twice that of Japan (Figures 1 and 2).

Conclusion

The questions we posed at the beginning were why does Japan need start-up firms, and how do we support them? The economist Ronald Coase argued in 1937 that the main reason why firms exist (as opposed to individuals acting as buyers and sellers at every stage of production) is to minimise transaction costs. Since the Internet reduces such costs, it also reduces the optimal size of firms. Small firms can buy in services from outside more cheaply. Thus, in overall terms, barriers to entry for new firms will fall. It is inevitable, then, that Japan will create new start-up firms. In fact, Japan is clearly embracing the Internet. Japan's e-commerce market is expected to grow sharply in the next few years, increasing from \$1.5 billion in 1998 to more than \$26 billion in 2002.

Japan needs such firms to help bring about much needed structural change to its economy. In fact, the impact of such Internet start-ups on pulling Japan out of its current recession should not be overlooked. This is because the Internet makes transactions more transparent. By cutting out the middlemen between firms and customers, it makes it easier for buyers and sellers to compare prices. By increasing price transparency and competition, the Internet will help to undermine current inefficiencies in the Japanese economy. It threatens to sweep away many archaic business

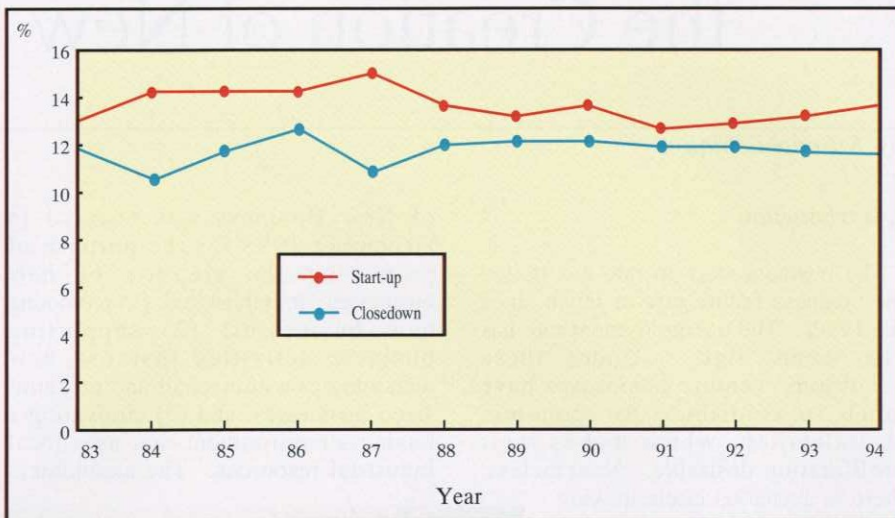


Figure 4 : Change in Start-up and Closedown Rates of Businesses in the U.S. (yearly average, across all industries)


Source : White Paper of US Small and Middle-Sized Businesses

practices that hold prices high and hinder productivity, such as Japan's notoriously inefficient and expensive distribution system. The longer the supply chain, the larger the potential gains from business-to-business e-commerce, since it allows firms to eliminate the many layers of middlemen that hamper economic efficiency. Increasing price transparency will also give more power to Japan's consumers who have hitherto been reluctant to spend their way out of the current recession. Thus, Japan urgently needs entrepreneurs with the vision and confidence to establish more start-up firms. These venture businesses need to be supported by venture capital provision, and, fortunately, this is occurring under Japan's programme of financial deregulation. In fact, there is now adequate capital available looking for potential entrepreneurs, and the new stock exchanges such as Mothers and Nasdaq Japan are able to provide comfort for investors to realise gains in the public markets in a reasonable time period. Finally, these changes should be accompanied by changes in business attitude that makes allowances for failure by encouraging entrepreneurs to undertake trial and error initiatives. This will give entrepreneurs the

confidence they need.

1 See Yonekura, S. and M. J. Lynskey, 'Softbank: An Internet *Keiretsu* and its Leveraging of Information Asymmetries', in Fridenson, P. and T. Yui (editors) *Industrial Democracy and Organisational Adaptability*. London: Routledge. (forthcoming).

2 Takeuchi, H., Mega-Denshi Sangyo (Mega Electronics Industry), *Keizai Kyoshitsu, Nihon Keizai Shimbun*, 12 March, 1996.

3 Interview with Koichi Nishimura, CEO of Solectron, in September 1996. 

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