

A Cluster of Internet Companies in Tokyo — Review of Bit Valley —

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1. Introduction

The *IT Revolution* may also be referred to as the *Internet Revolution*. The Internet is an innovative channel for distributing information that generates new types of businesses and urges existing industry's organizational restructuring. As a consequence, the IT industry has to adapt to the speed of technological innovation and to the emergence of new products and services more quickly than other industries.

To adapt to such a business environment, IT companies tend to locate themselves in the proximity of specific regions and form a clusters such as Silicon Valley and Silicon Alley in the United States. In these clusters networks of personal contacts are likely to be developed because of the proximity of companies and to bring about industry-wide progress. These clusters may be regarded as communities of the same kind of specialists located in the same neighborhood. Once such communities are formed, the distribution of information inside the communities speeds up, quality and quantity of information are enhanced and the frequency of product innovation increases. This consequently leads to the progress of the entire industry located in a specific region. A concentrated region, on the other hand, is only a cluster if networks of personal contacts and communities have been formed in the region.

The following sections discuss the reasons why Internet companies are likely to enjoy progress through clustering, followed by a review of Bit Valley, Tokyo's cluster of Internet companies and the possible policy options for fostering the cluster of Internet companies.

1-1 Internet Companies and Clusters: Clustering and Industry-wide Progress

Thanks to Michael Porter's work on competitiveness and clusters, the concept of clusters has attracted the attention of policy makers and business managers since the late 1990's¹. In recent years clusters are becoming increasingly important for Internet companies to become successful. This is because clusters are related to the nature of Internet business.

First, Internet business requires different types of human resources because Internet companies need to aggregate various talents to carry out business. Broadband communication, for example, made the distribution of speech, pictures, images and even video possible over the Internet, giving rise to the need for different types of technicians. The sophistication of website-utilizing businesses further increased the demand for various types of technicians and specialists to run the Internet business with advanced database constructions and marketing strategies. To create a business like "Amazon" and to make it successful, for example, logistics specialists, as well as website designers, programmers and managers were required. Conversely, new Internet projects and companies often come into being as a result of personal contacts of specialists in various fields who are sharing a common goal and exchanging their special knowledge and ideas. These personal contacts are synonymous with "the community".

This type of community differs from the community of specialists with a same kind of expertise because face-to-face contact is necessary. A community of specialists with different kinds of expertise needs to communicate their tacit knowledge precisely to each other in personal contact². *Linux*, on the other hand, is developed by a community with special knowledge of programming that

¹ Porter, Michael E. "CLUSTERS AND THE NEW ECONOMICS OF COMPETITION" *HARVAERD BUSINESS REVIEW*, November-December 1998

² About the distinction between the information and the knowledge, or tacit and explicit knowledge, refer to Nonaka, Ikujiro and Takeuchi, Hirotaka *The Knowledge-Creating Company* Oxford University Press 1995

does not require face-to-face personal contact. As a result, Linux can be developed by programmers all over the world and around the clock.

Secondly, Internet business requires the speedy response to drastic changes in the business environment. Although speed of innovation is fast enough in the IT industry, the Internet companies are required to respond more quickly to changes than other sectors in the IT industry.

To avoid rapid technology obsolescence, Internet businesses must be always developed based on predictions of the status of progress in hardware, software and network development 6 months ahead of time. But the progress in hardware technology is even faster, as evident in Moore’s Law. The value of networks, at the same time, is increasing dramatically on a day by day basis, as indicated by Metcalfe’s Law. Internet businesses must be rolled out while constantly forecasting these technological progresses in other sectors in the IT industry and the status of progress in networks.

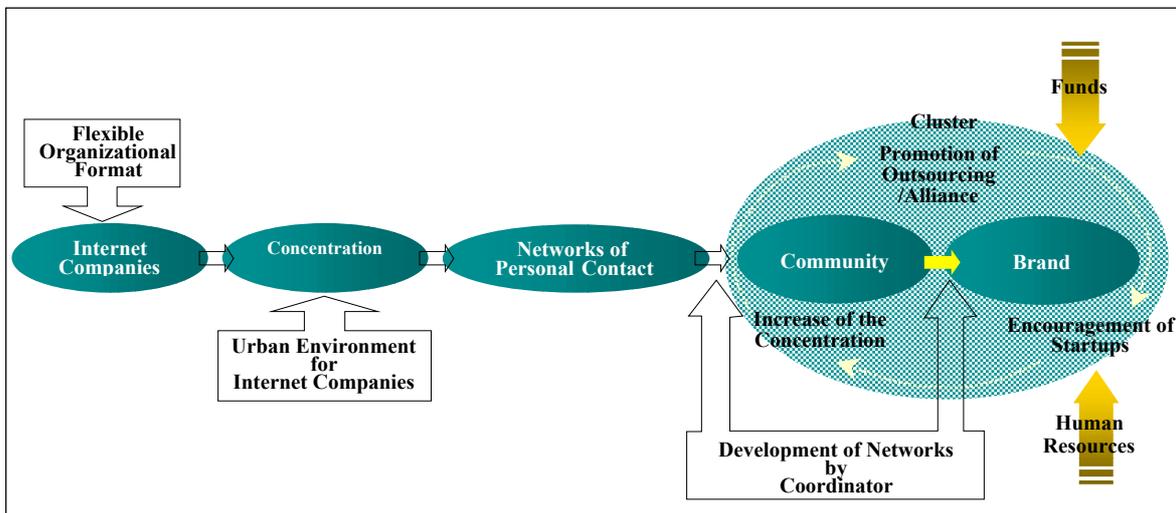
In addition, Internet businesses must always cultivate the market ahead of their rivals, as they are particularly prone to the “winner takes it all” phenomenon³. In other words, they are always urged to reduce their business risk by minimizing the time taken for ideas to crystallize and hit the market.

As a result, companies and specialists tend to stress the importance of a flexible organization, face-to-face communication and collaboration, and the advantage of informal networks with face-to-face communication. Taking this into account, clusters are advantageous because the proximity of companies offers an environment in which various specialists can easily come into contact with each other.

1-2 Internet Companies’ Clustering Process

The previous section described how a cluster contributes to the progress of individual companies. This section tries to show the clustering process of Internet companies. Based on studies of successful clusters of Internet companies like Multimedia Gulch and Silicon Alley in the U.S, Figure 1 illustrates a model that demonstrates how a concentration of Internet companies turns into a cluster, and eventually provides to industry-wide progress⁴.

Figure 1: Clustering Process of Internet Companies



³ Frank, Robert H. and Cook Philip J. *The Winner-Take-All Society* Simon & Schuster 1995

⁴ Yukawa, Kou “The Regional Dependence of Content Industry — Multimedia Gulch” (http://www.fri.fujitsu.com/open_knlg/reports/40.html) *FRI Review Vol. 3 No.2* 1999 and “Policy Options for Content Industry — Silicon Alley” (http://www.fri.fujitsu.com/open_knlg/reports/47.html) *FRI Research Report No.47* 1999

Once Internet companies with a flexible organizational format are lured to a specific urban environment and become concentrated, an informal network of personal contacts between specialists is formed by their geographic proximity. This network will evolve into a community, in which outsourcing and alliances among companies and specialists takes place frequently.

Such activities will encourage startups and further increase the concentration of companies. If successful companies continuously evolve from the community, not only the companies but also the community will gain recognition and become a kind of a brand. This will consequently induce the inflow of more funds and more talented individuals, generate more new businesses, and promote the progress of the cluster as a whole. In the process, coordinators, like nonprofit organizations (NPOs) and universities, who aim to develop networks of personal contacts often play an important role.

Silicon Valley, for example, is not just a geographic name of a part of California. It is a brand name for a community of specialists. If an entrepreneur plans to go to Silicon Valley, he does not only expect to have an office in a part of California, he hopes to join a community of specialists. Thus, when a community accomplishes a brand name, it induces the inflow of human resources and funds from those who wish to become a member of that community.

Ultimately, the term “cluster” does not only describe a concentration of many companies. Community formed by the concentration of companies that creates new values is necessary to achieve industry-wide progress. “Community” is the central concept of clusters.

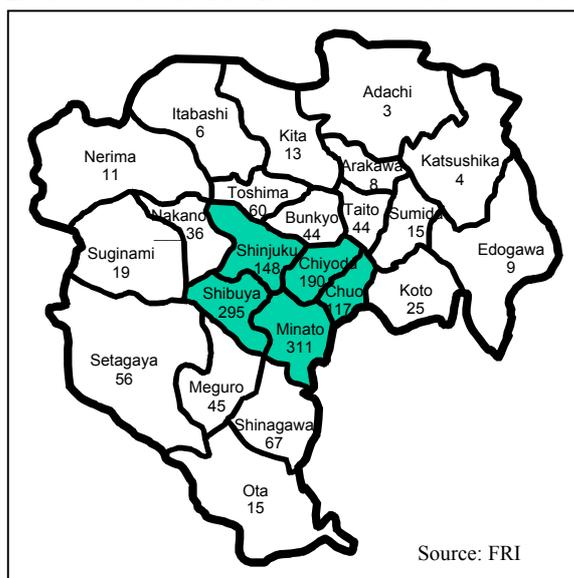
2. Clusters of Internet Companies in Tokyo: Review of Bit Valley

One of the hottest topics among people involved in the Internet business in Japan between 1999 and 2000 was *Bit Valley*, a community of the entrepreneurs of Internet companies situated in and around Shibuya, Tokyo. Bit Valley led to the birth of the Bit Valley Association (BVA), an NPO aimed at promoting personal contacts between people engaged in Internet businesses. BVA’s fraternity party *Bit Style* and its mailing list became the focus of attention among those involved in Internet businesses. The following sections review Bit Valley with reference to the aforementioned model.

2-1 Concentration Status of Internet Companies

A survey by Fujitsu Research Institute reveals the concentration status of Internet companies in the Tokyo. At the end of February 2001, 1,541 Internet companies were found in the 23 wards of Tokyo⁵. More detailed research on the ward level shows that almost 70% of all Internet companies were located in the 5 wards in the city center (Chiyoda, Chuo, Minato, Shinjuku and Shibuya Wards); those in Minato and Shibuya Wards accounted for nearly 40% of them. Minato Ward had the largest number of Internet companies (Figure 2). The detailed breakdown of the wards with a high density of Internet companies by area shows that 426 out of 1,061 companies in the 5 wards in the city center were concentrated in the area spanning Shibuya and Akasaka (Figure 3).

Figure 2: Internet Companies in Tokyo’s 23 Wards



⁵ Fujitsu Research Institute and Ministry of Economy, Trade and Industry *Survey of Internet Companies in Tokyo* June 2001 (http://www.fri.fujitsu.com/news/year2001/news_00_01.pdf). About the definition of Internet companies and research methods, please see appendix.

and help each other whether they liked it or not. Thus the networks of personal contacts evolved into communities.

The communities formed in this manner have made various contributions to each company. They have played an important role especially in acquiring human resources. For instance, up until a few years ago, some companies hired most of their employees through the word-of-mouth within the community without even looking at their resume.

2-3 Communities evolving into Brands

When Bit Valley gained public recognition, this community of entrepreneurs in Tokyo became visible for the first time and it rapidly evolved into a brand. The name of Bit Valley dates back to the beginning of 1999, when CEOs of Internet ventures around Shibuya called for turning Shibuya into a Mecca for Internet businesses in Japan. Although Bit Valley is not strictly defined geographically, it is regarded as a community of entrepreneurs in the vicinity of Minato and Shibuya Wards, which have the highest density of Internet companies.

The Bit Valley Association (BVA), which is an NPO established by entrepreneurs and serves as a coordinator of the community, engages in activities such as parties and mailing lists. In step with the increasing attention to the Internet business at this time, BVA grew into an organization with more than 6,000 members in 6 months. In their mailing list, dozens of emails were exchanged on a daily basis and the parties in fashionable nightclubs in Shibuya were inundating with people who were interested in Internet business. This phenomenon rapidly attracted heavy media attention and even the governor of Tokyo and the governor of the Bank of Japan participated in the parties. Thus, Bit Valley became a phenomenon symbolic of Internet businesses in this year. The development of Bit Valley as a brand is attributable to the fact that Internet businesses gained greater recognition and participation in the community reached a critical mass.

The branding of the community led to a temporary increase of specialists and companies, like talented individuals, investors and venture capitals, who were interested in joining the community. As a result of this phenomenon, a number of new businesses were generated. Cafeglobe.com⁷ (a female-oriented community site, which acquired venture capital investment by posting the business idea on the mailing list) and FreeML.com⁸ (a mailing list service provider that resulted from an encounter of technicians with entrepreneurs at a party) are examples for companies that originated from BVA's activities.

2-4 Decline of the Brand

Bit Valley appears to have succeeded as a cluster of Internet companies. Often, however, it is also regarded as an example of Internet businesses that ended in failure. In fact, the Bit Valley brand has declined since the middle of 2000.

One reason for this failure is the gap between the actual status of the community and the degree to which it was recognized. Originally, there was a community of entrepreneurs interacting after the dawn of Internet business. The name *Bit Valley*, however, turned into a brand so rapidly that it couldn't be matched by the speed of communal developments. The network division of labor, alliances among specialists, the promotion of startups and the further concentration of companies, for example, did never sufficiently occur in the community. The businesses that originated from Bit Valley were little more than the temporary result of an inflow of funds and human resources from outside the community during the years of the Internet Bubble. The emergence of new businesses from the community stopped as skepticism toward Internet businesses became dominant and the inflow of funds and human resources terminated following the collapse of the Bubble in the U.S. and Japan.

The other reason for its failure is the inability of its coordinators. Although BVA succeeded in establishing Bit Valley as a brand in a very short period, it suspended the parties and the mailing lists

⁷ <http://www.cafeglobe.com/>

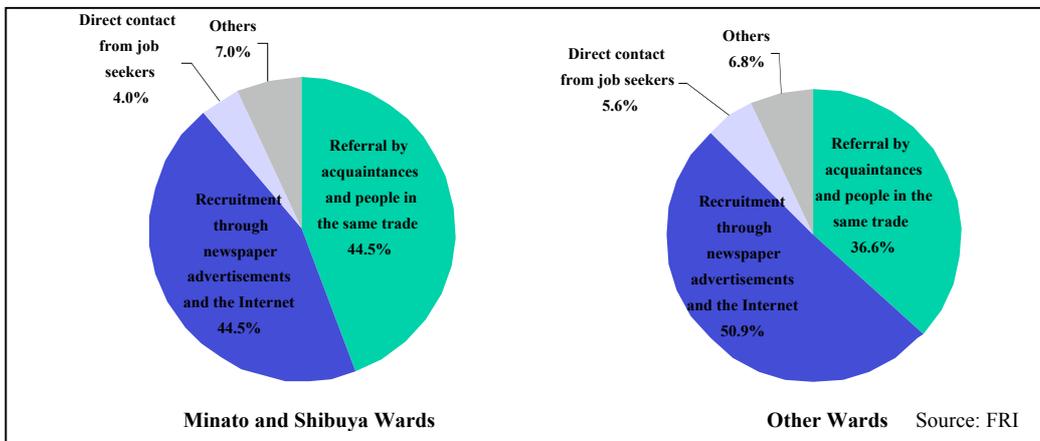
⁸ <http://www.freeml.com/>

due to a failure of adaptation to the rapid expansion of the community. As a coordinator, BVA should have engaged in an active role to foster the community which represented the brand at this time.

2-5 Bit Valley after the Collapse of the Bubble

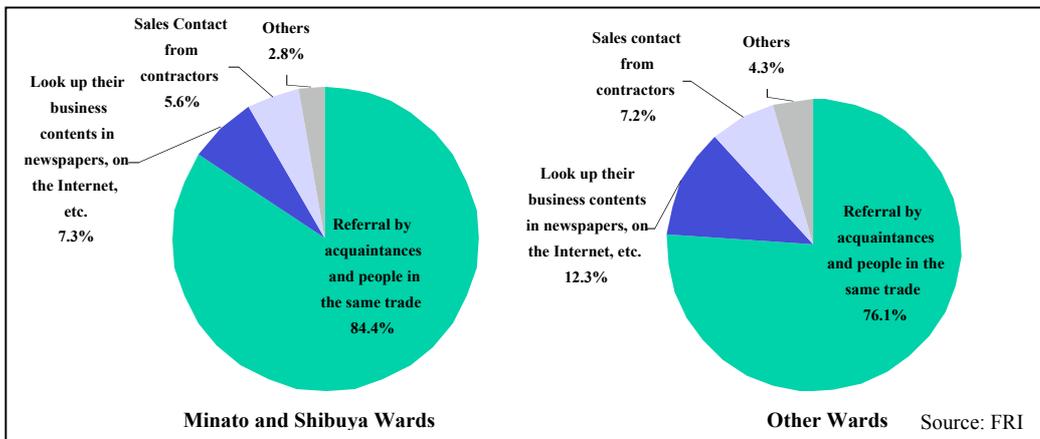
This section examines the current status of the Bit Valley community. Firstly, as for recruitment methods, 44.5% of all Internet companies in Minato and Shibuya Wards answered that “referral by acquaintance or people in the same trade” is the most effective method of recruitment, according to the findings of “Survey of Internet Companies in Tokyo” that was conducted in March 2001. This was about 8% higher than in other wards, reflecting the importance attached to word-of-mouth in the community (Figure 5).

Figure5: Most Effective Recruitment Methods



In particular, capable technicians tend to seek an alternative job by not using headhunters or recruiting ads but using word-of-mouth information they acquired. Apparently, they often just indicate that they want to change jobs to those whom they trust and wait until other companies express their interest. In other words, in these areas (Minato and Shibuya Wards), more people who are engaging in Internet business are seeking jobs based on word-to-mouth information rather than recruiting ads and recruitment magazines when they want to change their jobs.

Figure6: Selecting Contractors for Outsourcing



Secondly, as for selecting contractors for outsourcing, the survey finds another interesting fact. Almost 90% of all Internet companies in the Tokyo 23 Wards Area outsource some of their work.

And, for the most effective means of selecting subcontractors to outsource their work, the largest number of companies answered “Referral by acquaintance and people in the same trade” even in wards other than Minato and Shibuya. However, the ratio of those that gave the same answer was even higher in Minato and Shibuya Wards (Figure 6). This shows that there is a good chance that Internet companies in these areas procure human resources and contractors within the community.

Also, activities to foster the community in these areas are carried out by the coordinators continuously. BVA holds seminars, study meetings and so forth on an irregular basis, and has held some parties exclusively for CEOs since December 2000. BVA sends invitation mail directly to them on an individual basis (not via a mailing list) and imposes strict restrictions on participants, even limiting those who accompany them at the party. BVA has taken such an individual-oriented approach out of regret that participants to mailing lists and parties expanded so rapidly in the past that it made close communication between specialists impossible. BVA plans to continue holding these exclusive parties on a regular basis, because the parties have been extremely appreciated among CEOs. “Managers build up the trust by exchanging their opinions with each other through face-to-face communications,” said BVA. “As it leads to actual business in many cases, we try to make such opportunities for them.”

In addition, the number of large companies advancing into the vicinity of Shibuya has increased lately. For example, a few office buildings that opened recently in Shibuya accommodate large companies as tenants, including NTT Electronics, NTT Communications, and MasterCard. Some large companies are advancing into Shibuya in order to join the community of Internet companies, as did NTT Communications, which admitted in a magazine interview that it moved in there because it “wanted to be an insider of Internet ventures.” The challenge for communities of Internet companies in Tokyo is whether it could form tangible communities and create new businesses while incorporating with large companies that reside in same area.

The vicinity of Shibuya is probably one of the biggest concentrated areas of Internet companies in Japan. However, as mentioned earlier, the proximity of offices itself is not important no matter how many companies are located in the same area. What is important for Internet companies is to form a community in which entrepreneurs and specialists can collaborate with each other by taking advantage of the fact that they are closely located. And thus, the current concentration of Internet companies will lead to industry-wide progress only if new projects and companies spring up from such communities.

Taking this into account, BVA’s activities are extremely important. Even though the activities currently carried out by BVA is not as glamorous as the parties in the past, it is desirable that the efforts made by BVA steadily bear fruit in the future and a industry-wide progress is realized as a result of these secure activities. Also, it would help the progress of the Internet industry as a whole if companies in clusters built more flexible organizations and actively promoted people-to-people exchange. If such practices become a norm, Bit Valley would truly become a valuable brand to companies located in and around Shibuya, and more companies and specialists would want to belong to that community from around the world.

3. Policy Implications of Supporting Clusters of Internet Companies

This chapter tries to establish policy options for supporting clusters of Internet companies based on above-mentioned Internet companies’ clustering process (Figure 1) and the analysis of the Bit Valley development. The key concept of the cluster is the quality of the community rather than the number of companies. In other words, without a community, it doesn’t work as a cluster even if there are many companies. Thus, support given in the conventional manner to attract companies, such as the construction of facilities and the development of infrastructure, will not always succeed to make a cluster successful even if it succeeds in attracting companies. This is because the communities have a voluntary and autonomous nature. Furthermore, a community without real substance cannot normally turn itself into a brand to lure funds or human resources. Even if it turns itself into a brand by chance, as in the case of Bit Valley, it will not be able to sustain the functions that are essential to a cluster that could realize industry-wide success.

Possible policy options for supporting clusters of Internet companies include 1:) providing support to coordinators in clusters where networks of personal contacts have already been formed, and 2:) assisting branding on the basis of a solid understanding of their actual status.

3.1 Supporting Coordinators

It would be effective for the government to support the coordinator's activities in the community once they started to get on the right track. Coordinators assume an important role by coordinating a place for exchanging ideas and opinions that makes the clustering of companies possible and leads to industry-wide progress. In the world of Internet businesses, ideas generated from such places lead to projects that finally evolve into companies. This is how Internet companies are generally created from the cluster. Support for creation of such places would help to increase opportunities for a wide range of talented people to get into close contact and increase the speed of innovation.

However, it would be virtually impossible for a government to create such places on its own because governments usually do not have enough experience in supporting communities beyond the mere construction of buildings and facilities.

An alternative policy option therefore is to support coordinators who originated from the community of people involved in Internet companies. Doing so it would provide support beyond individual Internet companies, where direct involvement would otherwise be difficult. The term "coordinator" in this context does not only refer to the BVA in Tokyo's case, however. Any organization that was born from the community and is dedicated to the community support could be acceptable. In this respect, NPOs and universities are potential coordinators.

In general, many of the coordinators that assume such an important role are grass-roots organizations run by volunteers, and the representatives have a number of problems concerning the administration of their respective organizations. Therefore, it is important that the government gives support for the coordinators based on a thorough understanding of their problems. And, in the case of grass-roots organizations, indirect support would be more effective than direct support because indirect support can keep their freedom intact and encourage volunteerism. Indirect support implies support that enables coordinators to carry out activities more easily. If the government facilitates coordinator's activities as an interface between the companies to other industries and players concerned in Internet business, it would be more valuable for coordinators than direct financial aid. Such support may take various forms on a case-by-case basis: negotiation with private enterprises to secure a venues for holding parties, seminars, etc., or simplifying the acquisition of human resources for companies in the region by liaising with educational institutions, for example.

3-2 Supporting Branding

A newborn community makes further progress through branding. Therefore, it is important to call attention to the world that there are clusters of Internet companies, for example, in a part of Tokyo. Thus, it would be effective to aim at developing brand images of clusters of Internet companies through government support. This would give an advantage even to obscure companies. More specifically, the Tokyo Metropolitan Government could introduce the "Bit Valley" as a promising Internet company's cluster by using its official website for supporting branding. In the website, a detailed explanation should be given about how easy it is to participate in various activities carried out by coordinators and to receive support. In addition, links to companies located in Bit Valley should be created so that they would serve as portal-sites of the cluster. In this way, local governments could treat a cluster of Internet companies as one company and implement a strategy to build up its brand image. Because the establishment of a brand image is achieved only through the success of the participating Internet companies as a whole, positive PR activities by governments would also help and support single Internet company in the cluster.

4. Conclusion

When fostering a local industry based on policies, it is important to support existing industrial clusters rather than attracting a completely new industry. Because the cluster has a large impact on individual Internet companies, it would be particularly effective to support clusters of Internet companies that are actually present in some parts of the Metropolis.

Furthermore, in order to join communities and take advantage of it, companies need to develop an organizational form and corporate culture that enables collaboration with others as insiders of communities. Companies that only outsource work to its own subsidiaries are unfit to become a members of a community. Because the participation in an existing community is an effective corporate strategy, it is necessary to review the situation and strategies of corporations from a community's point of view.

By forming informal networks of personal contacts and continuous corporate reconstructing, a community transforms a concentration of companies into a place for the creation of new values in the future.

Appendix: Definition of Internet Companies and Methods for Creating a Database

I. Definition of Internet Companies

Recently, many publications are using the term "Internet companies" or its synonyms in their titles. Most of them refer to Internet-related companies or companies which utilize the media of the Internet as "Internet companies" or "the Internet industry" without clearly defining these terms, and no general definition of "Internet companies" exists at present. Looking at surveys in the U.S., which we referred to in conducting this survey, the Internet industry is defined as the "interactive media industry" in San Francisco and as the "new media industry" in New York⁹. Although there is a slight difference in the definitions of the industry in these two surveys, it can be interpreted that Internet companies are defined as "a new type of company in the information industry which offers products or services for interactive use to a third party." Specifically, it refers to companies whose business is "to design, develop, market, distribute contents, and to develop the tools used in creating contents" and focuses on companies that provide contents for the Internet such as websites and services that utilize them. Although this definition may seem to be very vague, it should be adequate and practical enough to define what is a very new industry. Actually, in the surveys conducted in San Francisco and New York, the new and growing industry that utilizes the new media of the Internet is understood fairly clearly. Considering the present situation in the U.S. and Japan, this definition should be adequate for the knowledge-intensive Internet industry at present and in future. Therefore, this survey adopts the same definition.

II. Methods for Creating a Database

As has already been stated, it is difficult to determine the real concentration of Internet companies from existing surveys and research. In similar surveys conducted in the U.S. which have been mentioned before, "companies in the interactive media industry" or "companies in the new media industry" are sampled from lists of companies organized by trade organizations or trade journals. But in Japan, there is no trade body which has a comprehensive list of Internet companies yet. Therefore, we conducted our research over the Internet, and used publications and interviews simultaneously based on the definitions given above to extract Internet companies, create a database of them and analyze the results.

1. Research over the Internet

"Internet Town Pages" which is equivalent to NTT's telephone directory was used in the survey over the Internet. The business categories adopted were: "Internet-related service," "Information processing service," "Information providing service," "Software," "Internet Service Provider," "PC communications service" and "Computer." First, we looked up the companies in these business categories registered in "Internet Town Pages" by street number. Then, to confirm that these companies fall under the definition of "Internet company" in this survey, we searched each company by the search engine using company name and other information. Companies were added to the database after confirming their business contents by visiting their websites. In parallel with this research using "Internet Town Pages," we searched for companies in the directories organized by company name and service provided on the Internet. In this case, companies were also added to the database after their business contents were confirmed from their websites.

⁹ "A Survey of Interactive Media Industry in San Francisco" Coopers & Lybrand et al. (1998), "New York New Media Industry Survey" Coopers & Lybrand et al. (1996), "2nd New York New Media Industry Survey" Coopers & Lybrand et al. (1997), and "3rd New York New Media Industry Survey" PricewaterhouseCoopers et al. (2000)

2. Research through publications

With the development of the Internet and Internet companies attracting attention, books using the terms "Internet Companies" and "Internet Business" are being published one after another in recent years. It is difficult to find any magazines or newspapers that do not refer to Internet-related companies or services at all. Of course, it is impossible to look at all of these in the search for Internet companies. However, we tried not to overlook new Internet companies by collecting information from as many sources as possible, including books, reports and magazines (including those which are published only on the Internet as online magazines) in addition to magazines specializing in the Internet business. We also confirmed the business contents of companies found through publications by visiting each company's website before adding them to the database.

3. Research through Interviews

To create a database which reflects the actual Internet business, we interviewed the management of Internet companies and directors of trade organizations to reflect the opinions of the people who are engaged in the Internet business. In addition to being referred to in creating the database, the opinions obtained in these interviews were also utilized to analyze the latest developments in the Internet business, policy options, and activities of trade organizations.

