

Chapter 2

Agglomeration of the Animation Industry in Tokyo, Japan

Abstract The agglomeration structure of the animation industry in Tokyo is described in terms of the characteristics of the transactional relationships among studios and in the labor market. Animation studios are concentrated in the western suburbs of Tokyo. Some studios receive orders from major clients such as related content firms located in the central business district of Tokyo and continue to distribute their work to others in the industry. Transactions among studios are conducted with short delivery times. Some parts of lower processes such as animation picture and coloring process are outsourced to foreign studios. Studios conduct transactions with each other for complementary labor and techniques. Workers acquire skills and obtain work through personal connections within and outside their studios to avoid income instability. Although the technical schools where they learn basic animation techniques are located across the country, skilled workers later gravitate to the animation industry in Tokyo because the city offers many opportunities to find work.

Keywords Domestic market • Personal connections • Technical schools • Tokyo • Transactional relationships

2.1 Introduction

Since 1960, the development of the Japanese animation industry has kept pace with national demand, with most animation studios located in Tokyo. For this reason, clarifying the agglomeration structure of the region's animation industry and the extent of its development is essential to understanding agglomeration as a general process in metropolises.

The research method involved a questionnaire survey administered to workers at animation production studios located in Tokyo and interviews with studio managers. In May 2005, questionnaires were mailed to a sample of 278 studios chosen from telephone directories. Data obtained through these questionnaires were

extracted to analyze the characteristics of each studio's location as discussed in a later section in this chapter. Overall, 48 studios (17.3 %) responded with valid answers. The questionnaire consisted of items assessing basic attributes, major business fields, major clients, and important transaction factors. Individual worker questionnaires were administered in November 2005 at one of the studios that had replied to the initial survey, and 20 freelancers were interviewed. The worker questionnaire consisted of items assessing monthly income, opportunities for skill learning, and the number of projects completed in a month. Over this time period, manager interviews were conducted at 12 studios, with 10 managers responding face-to-face, one over the phone, and one by email. The current study is based on these data and their analysis.

2.2 Growth in the Japanese Animation Industry

2.2.1 Japanese Animation Market Structure

Figure 2.1 shows the total sales of the Japanese animation industry, as reported in the “Anime sangyo repoto 2012” (Report on the animation industry 2012) by the Association of Japanese Animations. Annual sales in 2011 are estimated to have been about 158.1 billion yen. Broadcast content constitutes the largest share of sales at 56.0 billion yen (35.4 %). The second largest share is merchandising sales at 24.4 billion yen (15.4 %). Despite the wide belief that Japanese animation is highly popular with overseas consumers, sales from the overseas market totaled only 16.0 billion yen (10.1 %).

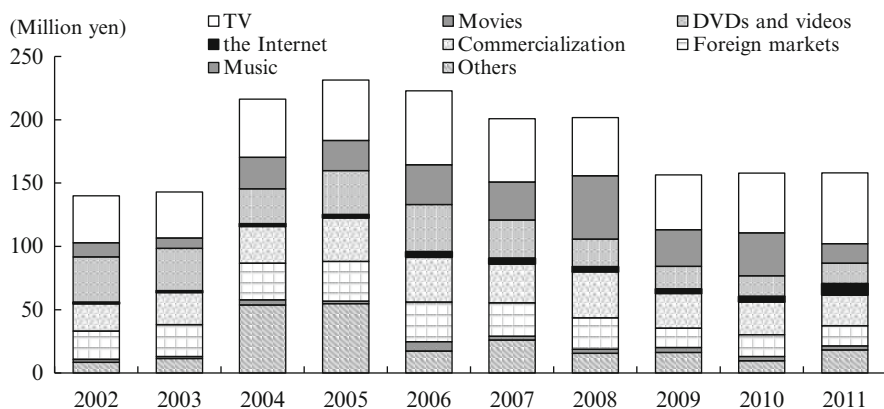


Fig. 2.1 Net sales by fields in the Japanese Animation Industry (2002–2011). *Note:* This graph is a narrow interpretation of the animation market by the Association of Japanese Animations (2012). The name and product field of each type of media have been modified to reflect those of Fig. 2.2. “Others” after 2008 include “entertainment.” *Source:* Based on “Anime Sangyo Repoto 2012” (a report on the animation industry 2012) by the Association of Japanese Animations, p. 53

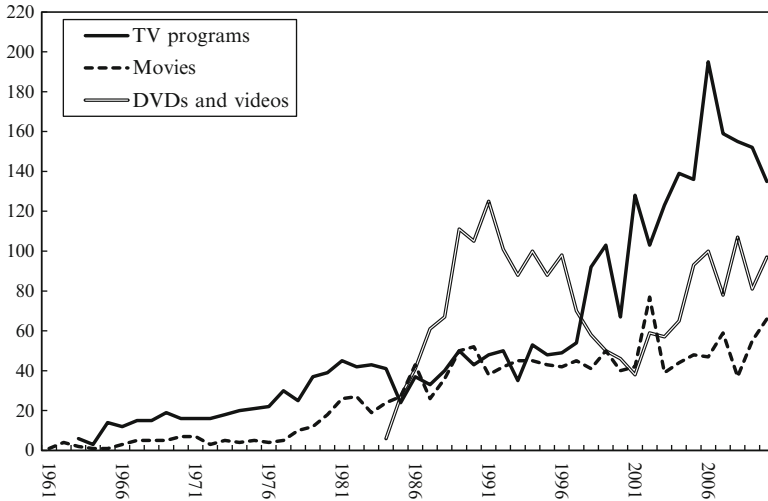


Fig. 2.2 Number of animated features newly broadcast via TV, movies, and Video/DVD. *Note:* The number of newly broadcast animated TV series is based on data provided by the Association of Japanese Animations (2012). Because of differences in the summarizing method and the references, this figure is different from that in Yamamoto (2012a). *Source:* Based on Yamamoto (2012a) Fig. 1, “Animage” Vol. 405, “Anime Sangyo Repoto 2012” (a report on the animation industry 2012) by the Association of Japanese Animations, p. 55

Figure 2.2 shows the changes in the number of annual series broadcasts as the animation industry developed rapidly through the late 1990s. The Japanese TV broadcasting market is now the main market for Japanese animation. Figure 2.3 illustrates the changes in the number of animated TV programs being shown in several timeslots in 1997, 2002, 2007, and 2012. This figure shows that the number of animated programs being broadcast during the midnight timeslot (after 11 p.m.) increased rapidly throughout the decade. These late-night animated shows are a basic product of the strategy to capture the main source of revenue from DVD and video sales to animation fans. According to Sudo (2008), this business practice was established in the mid-1990s and the market has expanded because of the increase in the number of Japanese animated programs for broadcast TV.

2.2.2 Japanese Animation Production Process and Introduction of Digital Technology

Workers in the animation industry can be roughly classified into the following three departments: the creative department, which handles the preproduction phase (planning, script, character design, storyboard, and layout); the production department, which handles the production and postproduction phase (key picture, animation picture, coloring, background, sound effects, shooting, special effects, and editing);

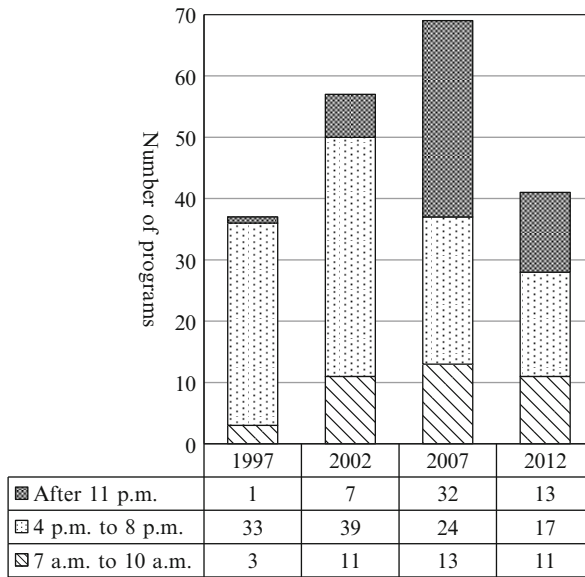


Fig. 2.3 Number of TV animation programs by Timeslot in February 1997, 2002, 2007, and 2012. *Note:* The timeslot category is based on the definition by the Association of Japanese Animations. Animations broadcast during timeslots other than these three were excluded. *Source:* Based on “Animage” (Vol. 225, 285, 345, 405)

and the directing department (project management and direction). The division of labor is more advanced in the production department than in the other two departments (Fig. 2.4).¹

Although the recent advent of digitization in the animation industry has brought a kind of diversification to the production process, the degree to which digital technology has been implemented varies from one process to the next. According to a study by Hara (2005), all production processes after coloring have already been digitalized during the 2D animation (celluloid animation) stage of production. In the background process, both analog and digital drawing are used, but the analog method, i.e., paper and pencil, is popular in the key picture and animation picture stages (Fig. 2.5). As we learned in our interviews, inanimate objects are easy to draw using 3D computer graphics, but 3D computer graphics are not suitable for depicting subtle emotions on human or animal faces; hence, the use of 3D computer graphics for the animation of organic objects is restricted to only part of the whole process.²

¹Layout and special effects are sometimes classified as production and postproduction, respectively.

²Before the advent of digitization, it took workers several years to learn the techniques required for the coloring process. Thanks to the popularization of computer-assisted drawing, this learning period has been shortened to 2 or 3 months because digital coloring does not require animators to possess the precision and discernment levels required for key picture work, animation picture work, and celluloid coloring. For example, workers in the coloring process cannot accidentally color off the edge of a painting or color unevenly when using digital coloring on the computer, and the operation of coloring software is the first important technique learned by workers in the coloring process. On the other hand, supervisors in key picture and animation picture departments demand that animators depict their visions accurately, which is a process that is hard to learn.

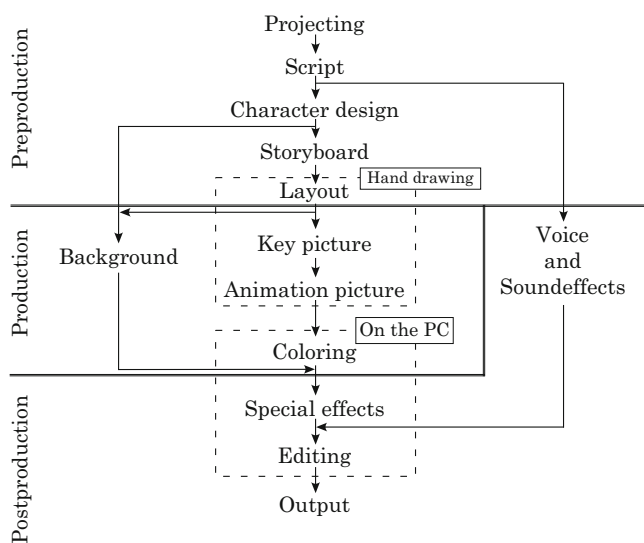


Fig. 2.4 Japanese animation production process



Fig. 2.5 Animation picture department workspace (2006). *Note:* Each image in an animated program is drawn by hand, even today

Washiya (2004) showed that it requires 2 months for 150 workers to produce the 3,000 hand-drawn pictures that make up 25 min of animation, whereas the animation picture and coloring processes—the lower processes of animation production—can be sustained by 30–40 workers each. The animation picture and coloring phases of production are very labor-intensive processes that are handled one after another, meaning that the first process has to be completed before the second process can begin. In addition, these two lower processes often need to absorb delays in the schedule that are created by the upper processes such as storyboard and layout (see Chap. 5, Fig. 5.1).

In Japan, over 130 new animated TV series are broadcast each year, and the animation industry is active year-round. Because a single animation studio cannot create all the necessary drawings for a complete series (which consists of multiple episodes), some episodes are outsourced to other studios. A single animated series may be produced by five or six gross-order³ groups, each handling different episodes that air in rotation.

2.2.3 *Location of Animation Studios in Tokyo*

In the 1960s, TV animation was the leading content of the Japanese animation industry. Yamaguchi (2004) indicated that the producers of TV animation in the early years were workers in the film industry or cartoon writers. Prominent among these was Osamu Tezuka, who is well-known as the creator of Astro Boy. Other cartoon writers and animation studios congregated around his studio because of geographical proximity. Konagaya and Tomizawa (1999) indicate that another factor encouraging industrial agglomeration in this early phase was the locations of famous cartoon writers' residences or film studios. The parental animation studios, as well as their spinoff and satellite studios, were located close to film studios to obtain convenient access to shooting facilities rather than their prime contract industry. The film and comic industries were the precursors to the animation industry. As a result, animation studios and the industry as a whole have agglomerated in the western suburbs of Tokyo, where they remain to this day. This agglomeration began in the earliest stages of industrialization and has continued to develop up to the present day; as of 2014, 78.8 % (278 studios) of all animation studios were located within Tokyo, 37 % (105 studios) of which were concentrated in Nerima and Suginami wards (Fig. 2.6).

³A gross order is an order of work for multiple episodes of an animation series from the primary contractors. Subcontracted studios handle all of the production processes for the ordered episodes by themselves.

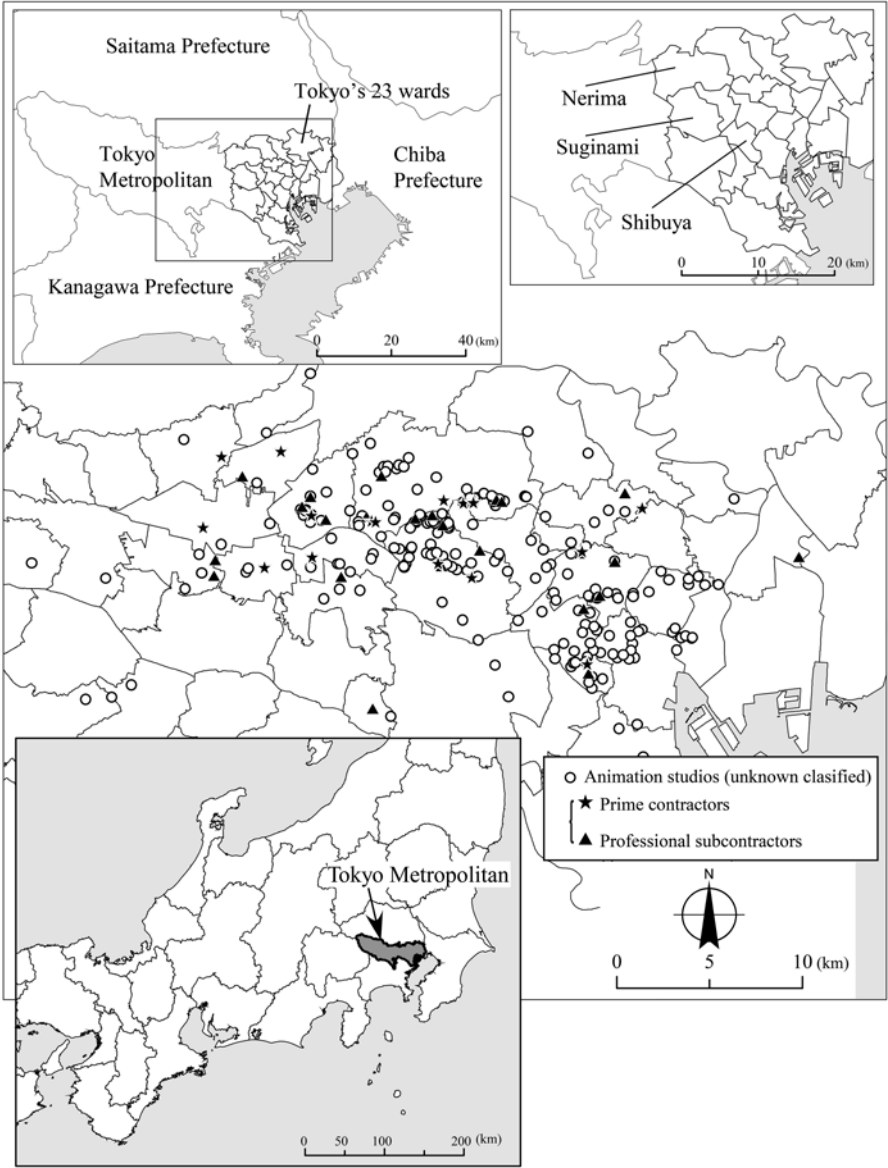


Fig. 2.6 Location of animation studios in Tokyo. *Source:* Questionnaire survey and field survey

2.3 Transaction Characteristics

2.3.1 *Basic Studio Attributes*

Animation studios are generally small. Forty out of 47 (81.5 %) studios possess less than 100 million yen⁴ in capital, and 26 of these have less than ten million yen. Only 16 out of 41 (39.2 %) studios have annual sales between 100 and 300 million yen, whereas 14 (34.1 %) studios have annual sales less than 100 million yen. In addition, 17 out of 45 (37.4 %) studios employ fewer than 20 regular workers.⁵

The larger studios tend to contract with firms in other industries or to diversify their business beyond animation production. As a result, their dependence on their animation production departments is lower than those of smaller studios. It is not the size of the studio, but the types of transactions it can make, which defines its role in the production process. Animation studios are classified into two types according to their trading practices. The first type is the “primary contractor” studios, which manage whole projects by keeping all of the production in-house. They receive orders from clients and produce animated TV series by themselves or by outsourcing work to secondary contractors. The other type is the “professional subcontractor” studios, which take on specific production processes from primary contractors and then deliver half-finished products to the primary contractors who then complete the projects.

The results of our questionnaire show that 18 of the studios in the present study are “primary contractors” while 26 are “professional subcontractors.” Two studios identified themselves as “others” and another two answered “unspecified.” Some primary contractor studios also take on specialized subcontracts to maintain a stable business income. Likewise, some professional subcontractor studios outsource certain jobs, such as the planning of an animation product series or video software production, as subsidiary business.⁶

2.3.2 *Structure and Spatial Pattern of Transactions*

The studios were requested to answer additional questions regarding their two clients with the largest sales transactions by describing these clients in terms of studio type and location as well as the proportion of their own total sales that comes from these two clients, the ordering process, and the use of transactional contracts or lack

⁴ 100 yen=0.75 US dollars as of May 1, 2005.

⁵ A few of the studios did not answer some of our questions. As a result, the numbers of answers are different.

⁶ The major focus of our 25 subcontractors is animation production (100 %). Their secondary activities include animation projecting (44.0 %), the production of video software (32.0 %), movie production (28.0 %), and commercial message production (24.0 %).

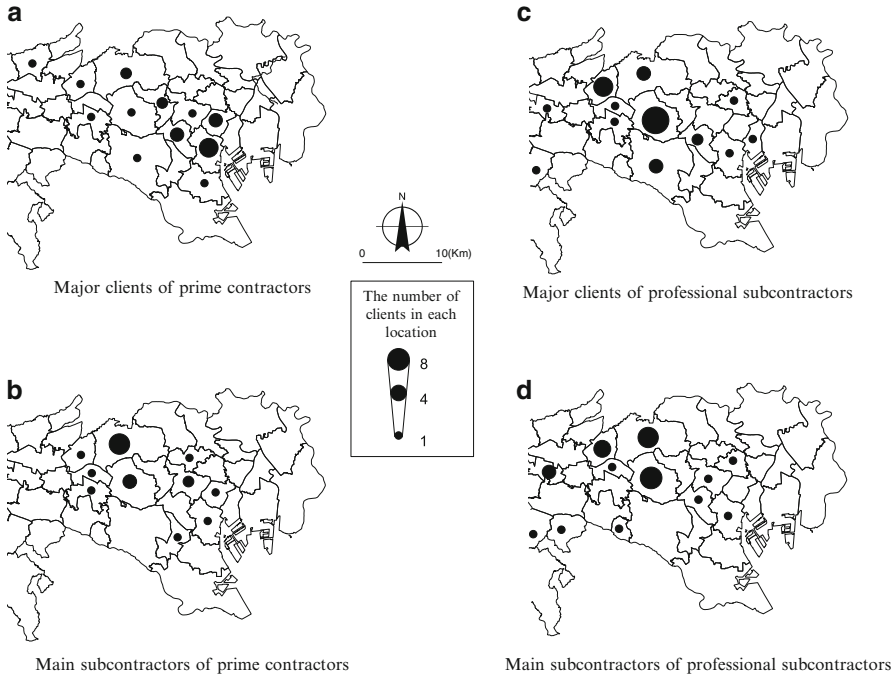


Fig. 2.7 Spatial Distribution Patterns of Animation Studios' Clients. *Source:* Questionnaire survey

thereof. Figure 2.7 maps these transactions as of 2004. In this section, the structure and spatial pattern of these transactions are elaborated on the basis of the studios' answers and Fig. 2.7.

2.3.2.1 Receiving Orders

Primary contractors have 8.5 clients on average, and only two studios have over 20 clients. Of the 16 (81.3 %) major clients, 13 were in the animation industry. This result supports the hypothesis that some primary contractors, as previously noted, specialize in receiving “gross orders,” which they subcontract out to stabilize their income. The remaining clients are in fields other than the animation and content industries, such as publishing (31.3 %), video game development (18.8 %), film-making (12.5 %), broadcasting (12.5 %), and others that are not as well represented. According to the results of our interviews, these contractors meet weekly with any sponsors when they are working on an animated TV series. The persons in charge of the studios and those in charge of TV production attend these meetings where they discuss production strategies and adjust their animation projects to coincide with the sponsors' marketing strategies. The large proportion of total order volume

that comes from each studio's two main clients suggests that many studios are heavily dependent on their top clients; in fact, eight out of 13 primary contractors receive over half of their entire order volume from a single top client.

Professional subcontractors tend to have more clients than primary contractors do, with 12.3 on average. Six of our professional subcontractors have over 20 clients, and one studio has 45 clients, which is a very large number in the animation industry. Although these subcontractors receive orders from various clients, 91.7 % of their major clients are in the same industry; this percentage is higher for subcontractors than for primary contractors. Regarding proportions of order volume from top clients, only nine out of 23 studios are dependent on their single biggest client for more than half of their whole order volume. These results show that professional subcontractors have many clients and sustain primary contractors with their flexibility.

2.3.2.2 Subcontracting

Primary contractors typically have more subcontractors than clients; one studio even had more than 100 subcontractors. Most of these subcontractor studios are in the animation industry (94.1 %), while others are primarily in movie production, music production, or multimedia-related services. However, most professional subcontractors have fewer than ten subcontractors, 95.5 % of which were in the same industry.

Tokyo is home to 96.8 % (123 out of the 127 studios) of the major clients and subcontractors described in this part of the survey. Figure 2.7 shows the pattern of major clients' and subcontractors' localization in Tokyo. Panel (a) shows the major clients of primary contractors. The number of orders from related content industries, such as publishing, broadcasting services, and video game development, is relatively high, and the distribution of these related content industries is concentrated in the Tokyo central business district (CBD), such as Minato and Chiyoda wards (e.g., Arai et al. 2004). This distribution supports the fact that primary contractors have clients in related content industries. Panel (b) shows the major subcontractors of primary contractors. Their distribution is concentrated in Suginami and Nerima wards where animation production studios agglomerate. Panels (c) and (d) show the major clients and subcontractors of professional subcontractors. Distribution of these is highly concentrated in Suginami Ward, Nerima Ward, and Nishitokyo City, where studios from the same industry have accumulated (see Fig. 2.6) because of the powerful influence of transactions in the industry. In other words, primary contractors obtain work from related content industries, then distribute individual tasks within each project to others in the industry, while professional subcontractors take on and perform these jobs in the same industry.

2.3.3 *Characteristics of Business Transactions*

2.3.3.1 Important Factors to Consider in Business Relationships

Table 2.1 enumerates several important factors that studios consider when conducting business. Among studios that accepted subcontracts from other studios, “trust regarding payment” from the client is an important factor in deciding whether to accept a subcontract. Other major factors included “whether the work is in a field that the studio is good at,” “whether the studio can handle the assigned workload,” and “conventional business relationship.” In the case of professional subcontractors, “geographical proximity” was also emphasized.

Table 2.1 Important factors in trade relationships

Items	Primary contractors	(%)	Professional subcontractors	(%)
<i>Factors considered in accepting a subcontract</i>				
Whether the work is in a field that the studio is good at	22	(71.0)	27	(58.7)
Trust regarding payment	20	(64.5)	29	(63.0)
Whether the studio can handle the assigned workload	12	(38.7)	24	(52.2)
Conventional business relationship	12	(38.7)	20	(43.5)
Viable delivery time	7	(22.6)	10	(21.7)
Having business relationships with the same capital studios	2	(6.5)	1	(2.2)
High pay rate	4	(12.9)	1	(2.2)
Favorable business conditions	1	(3.2)	7	(15.2)
Geographical proximity	0	(0.0)	6	(13.0)
Number of studios replying	31	—	41	—
<i>Factors considered in subcontracting work out</i>				
Shortage of in-house labor force	18	(60.0)	28	(70.0)
Complementary skills	14	(46.7)	7	(17.5)
Conventional business relationship	11	(36.7)	18	(45.0)
Trust regarding product quality	11	(36.7)	16	(40.0)
Short delivery time	10	(33.3)	21	(52.2)
Geographical proximity	7	(23.3)	10	(25.0)
Cheap labor force	1	(3.3)	4	(10.0)
High pay rate	1	(3.3)	1	(2.5)
Having business relationship with the same capital studios	0	(0.0)	1	(2.5)
Number of studios replying	30	—	40	—

Thirty primary contractors and 40 professional subcontractors replied with multiple answers

Source: Questionnaire survey

Among studios that subcontract some of the work they receive from clients, the most important factor in the decision to subcontract was whether there was “shortage of in-house labor force,” which indicates a lack of complementary labor. “Complementary skills” was the second most commonly chosen item by primary contractors, though it was chosen less frequently by professional subcontractors. “Short delivery time” was the second most commonly chosen item by professional subcontractors. To summarize, in considering a business transaction, primary contractors emphasized complementary skills as well as complementary labor, while professional subcontractors put even more emphasis on complementary labor in the short term.

As common characteristics of transactions in the industry, studios emphasized “conventional business relationship.” They also emphasized “trust regarding product quality” when ordering jobs and the area of specialty when receiving jobs. Technical competence was a major criterion in choosing partners.

2.3.3.2 Delivery Time

Table 2.2 shows the delivery times specified by clients in the animation industry. In the case of primary contractors, this table reveals that most delivery times were longer than 2 months. One reason for this is that most major clients are in related content industries, as shown by the distribution of the clients of the animation studios. The business they have in common is centered around TV programs, and the delivery times in these contracts are rather long, generally ranging from 2 to 13 months and sometimes longer. Another reason for the long delivery times is that these transactions represent gross orders for work that will be ongoing throughout the duration of the animated series.

In the case of professional subcontractors, on the other hand, only around 25 % of all studios reported requesting delivery times ranging from 2 to 6 months, while 73 % of them reported requesting very short delivery times like “1 day,” “1 week,”

Table 2.2 Distribution of due dates for orders received

Lead times	Primary contractors	Professional subcontractors
1 day	0	9
1 week	1	12
10 days	0	7
1 month	2	5
2–3 months	13	7
4–6 months	8	4
7–9 months	3	0
10–12 months	4	1
Over 13 months	1	0
Number of studios replying	32	45

Source: Questionnaire survey

and “10 days.” This distribution of delivery times arises from the fact that business transactions with medium-length delivery times tend to be for gross orders whereas those with short delivery times tend to be for work on only a small portion of the whole animated series, e.g., one or two episodes. Moreover, these short delivery times promote the need for geographical proximity among the participating animation production studios.

According to our interviews, schedule delays typically arise during the preproduction processes, such as the “storyboard” and “layout” stages, and are then absorbed during the lower processes, such as “key picture,” “animation picture,” and “coloring,” through insistence on short delivery times, with deadlines as tight as 1 day. In addition, key pictures and animation pictures are still drawn with pencil and paper in Japan, although the digital technology that could replace this stage is available. These half-finished products are then delivered to the person in charge at the client studio. To make this delivery faster and easier, the animation studios prefer geographical proximity to mitigate time constraints in transactions between business partners (see Chap. 5 for more detailed information).

2.3.3.3 Contracts

We asked whether studios explicitly record contract details when conducting business. For studios placing orders, primary contractors recorded these details in 18 of 27 cases, while professional subcontractors recorded them in only eight of 46 cases. For studios receiving orders, 21 of 27 of the primary contractors and 31 of 35 of the professional subcontractors did not explicitly record details. It appears that these studios usually do not explicitly record contract details during transactions within the industry.

Based on our interviews, there are three main reasons why these studios do not explicitly record contract details. First, drafting documents leads to rigid contractual coverage, difficulties of industrial practices, additional services based on tacit understanding, and flexible and impromptu responses in the case of delays in the upper processes such as storyboard, layout and quality checking for key pictures and animation pictures (see Sect. 2.2.2 and Chap. 5 for more detailed information). Second, these documents guarantee the credibility of contractual execution and include compensation for any breach in exchange. Typically, animation studios are so small that any such penalty would severely affect their business conditions. Third, transactions between professional subcontractors are mainly based on horizontal relationships, in which there is a tacit understanding between the parties. Whether the products are of acceptable quality depends on the subjective judgment of the person in charge, and very short delivery times require studios to be flexible with regard to production. In other words, it is difficult to define an acceptable product condition in contract documents. Moreover, studios prefer the benefits that stem from an avoidance of documentation, which is based on accepted custom in the animation industry. Industrial organization theory is useful to interpret this characteristic transactional relationship. Williamson (1983) pointed out that transactions

based on mutual trust within a peer group can tolerate a higher degree of risk than transactions in the market can. Implicit contracts and contract renegotiation should also be discussed in the context of the new institutional economics.⁷ Players can save significant contract costs through relying on implicit contracts constrained by something held in common such as transaction customs. In addition, when contract details are not explicitly recorded, they can be renegotiated between the studios to maximize profits. Although these points have been discussed with regard to the employment relationships between the firms and their employees, they can also be applied to the transaction relationships between studios.

While primary contractors are the biggest clients of the subcontract studios, the biggest clients of the primary contractors are outside the industry, with delivery times usually between 2 months and 1 year. Given these circumstances, it is understandable that primary contractors and their clients prefer the credibility of contractual execution.

2.3.3.4 Characteristics of Conducting Business with Overseas Studios

Some of the primary contractors and subcontractors surveyed in this study conduct business with overseas studios. Nine examples of such relationships were reported in the survey, and 28 examples of transactions with animation production companies based in East Asia were reported; the major subcontracting countries, South Korea and China, were the locations in most cases. These transactions occurred with partners in South Korea (15 business transactions: 11 in Seoul and 4 unknown), China (seven business transactions: two each in Shanghai and Wuxi, one in Changzhou and two unknown), Indonesia (two business transactions; one each in Denpasar and Bandung), the United States (one in Los Angeles), and unspecified countries (three) (Table 2.3).⁸

In the case of business conducted with South Korean companies, the processes ordered mostly consisted of animation picture (nine transactions), coloring (eight transactions), and key picture (seven transactions). Other processes requested were background (five) and others (two). In the case of business with China, however, the main processes ordered were animation picture (seven) and coloring (seven), whereas the key picture process was ordered only once.

When asked to discuss their reasons for ordering work from South Korean studios, Japanese studios emphasized “shortage of in-house labor force” (nine transactions, 60.0 %), “complementary skills” (seven transactions, 46.7 %), and “short delivery time” (five, 33.3 %). Meanwhile, regarding work ordered from

⁷As a textbook for learners, Milgrom and Roberts (1992) would be appropriate.

⁸The overseas clients in these relationships were in South Korea (one business transaction), the United States (four business transactions), France (one business transaction), the United Kingdom (one business transaction), and unspecified countries (two business transactions). The industries of these clients included animation production (four), publishing (two), music production (one), toy manufacturing (one), and financing (one).

Table 2.3 Subcontracted animation processes by region

Process	Country/City									
	South Korea (15)		China (7)		Indonesia (2)		U.S. (1)			
	Seoul (11)	– (4)	Shanghai (2)	Wuxi (2)	Changzhou (1)	– (2)	DPS (1)	BDO (1)	LA (1)	– (3)
Production										1
Key picture	5	2			1					3
Animation picture	5	4	2	2	1	2				2
Coloring	4	4	2	2	1	2				1
Background	5						1	1		2
Editing									1	
–	2									

Source: Questionnaire survey
Numbers in parentheses after country and city names indicate the number of top clients of respondents in 2004
DPS Denpasar, BDO Bandung, LA Los Angeles; – unknown

China, Japanese studios emphasized “shortage of in-house labor force” (six transactions, 85.7 %), “cheap labor force” (five transactions, 71.4 %), and “short delivery time” (four, 57.1 %). These figures suggest that Japanese studios expect different advantages from outsourcing to South Korea and China. The processes ordered from Chinese studios are mainly labor-intensive and lower-level processes, such as animation picture and coloring, because of the significant difference made by a cheap labor force. From South Korean studios, however, better technique and product quality are expected (see Yamamoto (2012a) and Yamamoto (2012b) for more information).

Short delivery time was the most strongly emphasized condition with regard to both Japanese–South Korean transactions and Japanese–Chinese transactions, although short delivery time and overseas trade might initially seem incompatible. They can coexist, however, because Japanese studios have developed remarkable logistics to support their transactions with the other two countries. First, some studios use professional delivery systems for transportation between Japan and the other two countries. Second, materials can be transported by association delivery, perhaps through an association founded by several animation studios.⁹ The transportation days for those deliveries are different from each other but are adjusted to cover every day.¹⁰ In association deliveries, the person in charge from one studio in the association flies to South Korea and China to collect the products being sent to all of the studios¹¹ (Figs. 2.8 and 2.9). The persons in charge of the South Korean and Chinese studios await the arrival of the persons in charge of the Japanese studios at the airport and deliver all of their products to the association at once. Representatives from the South Korean or Chinese studios can also visit the Japanese studios commissioning the work to receive products and deliver finished work to the person in charge. This mutually cooperative system enables South Korean and Chinese studios to deliver their work within a short timeframe.¹²

⁹As of 2007, one professional delivery system and three association delivery systems were in place between Japan and South Korea, and one association delivery system was in place between Japan and China. Eleven Japanese studios and 12 South Korean studios participated in an association delivery system. The author accompanied an animation producer on the association delivery that transported approximately 100 kg of products consisting mainly of work on paper, such as storyboards, layouts, key pictures, and animation pictures (Fig. 2.9).

¹⁰According to our interviews, the time and effort required for transportation is not significantly greater in transactions with South Korean or Chinese studios than in those with studios in smaller Japanese cities. Because the cost of labor is cheaper in South Korea and China than in Japan, a division of labor between Japan and South Korea or China is a practical choice.

¹¹Japanese animation studios use Narita International Airport for their association deliveries because of its departure times. The interviews showed that production activity all through the night is common and that instantaneous production is emphasized in the industry (see Chap. 5 for more detailed information). For this reason, early morning transportation by car is suitable because of the reduced frequency of traffic jams and the ease by which schedules can be managed, thereby saving time. Pickup times are set between 5:00 a.m. to 6:30 a.m., and Narita International Airport offers morning flights, reducing transportation time to a minimum.

¹²During an association delivery round trip, the person in charge from Japan stays and supervises operations at the South Korean or Chinese partner studios.



Fig. 2.8 Packing a half-finished product for Association delivery. *Note:* Duty studios in Japan receive half-finished products from midnight to early morning. *Source:* Based on Yamamoto (2012b) Photo 6-2



Fig. 2.9 Association delivery at Incheon International Airport. *Note:* A representative of the duty studio in Japan transports the package by commercial airline. *Source:* Based on Yamamoto (2012b) Photo 6-3

2.4 Characteristics of the Labor Market: Freelancers

According to our questionnaire results, the total number of freelancers participating in our study was 1,391 compared with 898 regular workers. However, the number of freelancers was based on figures reported by the studios, and the data might have been counted twice. At one studio, freelancers account for more than 90 % of its workers. Based on these facts, it is clear that a large number of freelancers is characteristic of the labor market in the animation industry.

Table 2.4 shows the distribution of regular employees and freelancers by job field. There are many regular employees in the directing department, such as “directors” (208 out of 227 workers), while most freelancers are in creative and manufacturing departments, especially “rendering” (175 out of the 683 workers), “key picture” (517 workers), and “animation picture” (324 workers). This association between employment type and job type is because of certain distinct characteristics of the jobs. “Directors” are responsible for management and business, and it is necessary for studios to employ regular workers in this regard for management stability. On the other hand, in fields like “rendering,” “key picture,” and “animation picture,” although studios require a number of suitable workers skilled in each area, the expense of keeping all those workers permanently employed would be tremendous.

Table 2.4 Number of workers by job type and job field

Job fields	Regulars	Freelancers
Producer	44	44
Director	208	19
Rendering	77	175
Key picture	166	517
Animation picture	120	324
Coloring	126	184
Background	130	58
Shooting	136	31
Sound	4	9
Editing	20	11
3D computer graphic	28	19
Other	36	0
Total	1,099	1,391

Source: Questionnaire survey
The number of regulars is the total number of workers regardless of whether they serve concurrently

“Key picture” and “animation picture,” in particular, require intensive labor and thus are unsuited to permanent employment.¹³

2.4.1 *Supply System of the Labor Force*

Conditions that determine whether employees are permanent or freelance are often related to their job backgrounds. This section focuses on the entry courses taken by workers, the reasons why studios hire regular workers, and the use of technical schools as a resource for developing labor skills.

Based on our survey data regarding entry courses and the final educational backgrounds of regular workers, it appears that 28 out of the 48 studios (58.3 %) mainly employ new graduates, while 17 out of the 48 studios (35.4 %) mainly employ experienced workers. Specifically, 23 out of the 48 studios (47.9 %) answered that their experienced workers came from the “animation industry,” while 29 out of the 48 studios (60.4 %) answered that most of their employees have a final educational background in a “technical school of animation.” A few workers came from related content industries, such as film (one studio), publishing (one studio), and video game development (one studio). Consequently, the main sources of regular employees are graduates from technical schools and experienced workers transferring within the industry.

As Table 2.5 shows, 35 out of the 48 studios emphasized “positive attitude toward work” as the most important criterion for employing regular workers. Other important criteria were “communication skills,” “cooperation to work in a team,” “skills above a specific level,” “rich creativity,” and “adaptation to the severe working environment.” The studios emphasize not only the employees’ techniques, but also their specialties and endurance.

An examination of the results from the questionnaire for freelancers shows that the freelancers consisted of one producer, four directors, four rendering specialists, eight key picture specialists, and three coloring specialists.

The remaining positions held by freelancers were “student” (13 respondents), “animation production” (four respondents), “film making” (one respondent), “others” (one respondent), and one nonrespondent. This result demonstrates that most freelancers enter the industry with no experience in other industries after graduating from a technical school. Freelancers’ final academic backgrounds were “technical school” (14 respondents), “high school” (three respondents), “university” (three

¹³ Adjustments in the schedule may increase the number of freelancers in production departments. The interviews show that time delays in upper processes are routinely absorbed by shortening the production time allotted to lower processes. In the case of a TV animated series production, the production time allotted for the drawing processes, such as the key picture, animation picture, and coloring stages, is approximately 2 weeks; however, the process can be compressed into 1 week or even 3 days. To meet these shortened deadlines, studios must increase the number of workers in these lower processes.

Table 2.5 Important criteria for employing regular employees

Items	Responses
Positive attitude about the job	35
Communication skills	24
Cooperation in a team	20
Skills above a specific level	19
Rich creativity	18
Adaptation to the severe working environment	13
Working experience in the animation industry	5
Knowledge in multiple fields	4
Others	1
Unspecified	1

Source: Questionnaire survey
Forty-seven studios replied with multiple answers

Table 2.6 Opportunities for skill learning among freelancers

Opportunities	Responses
Acquiring skills at educational establishments	13
Guidance on the job from senior staff members	11
Acquiring skills through self-education after joining the industry	2
Training at previous studio	2
Training at current studio	2

Source: Questionnaire survey
Twenty freelancers replied with multiple answers

respondents), and one nonrespondent. This indicates that a large proportion of freelancers are graduates from technical schools, as is the case among regular employees.

When asked why they chose to freelance for their job style, freelancers responded both positively and negatively. Positive results were variations on “I can utilize my skills” (7 out of 20 respondents), “I can choose my work” (four respondents), and “there are few time constraints” (three respondents). Negative results were “no specific reason” (seven respondents), “worsening of interpersonal relationship” and “the intentions of the studio with which I am associated.” In fact, most freelancers’ motives contain a mixture of positive and negative reasons involving self-actualization through use of their skills and inevitable external factors.

Table 2.6 enumerates the various opportunities that freelancers have to acquire technical skills. The major opportunities are “acquiring skills at educational establishments” (13 respondents) and “guidance on the job from senior staff members” (11 respondents). This result indicates the importance of technical schools as a supply source of workers. In addition, the prevalence of “guidance on the job from senior staff members” shows that on-the-job skill learning is achieved not only through training provided by the studios, but also through vertical interpersonal

Table 2.7 Distribution of students at a special animation school by high school location

Local regions	Tokyo base	(%)	Osaka branch	(%)	Total	(%)
Hokkaido	3	(1.0)	2	(0.9)	5	(1.0)
Tohoku	23	(8.1)	1	(0.4)	25	(4.8)
Kanto	192	(65.1)	1	(0.4)	193	(37.2)
Chubu	44	(14.9)	6	(2.7)	50	(9.6)
Kinki	4	(1.4)	166	(74.1)	170	(32.8)
Chugoku	5	(1.7)	25	(11.2)	30	(5.8)
Shikoku	8	(2.7)	13	(5.8)	21	(4.0)
Kyushu	15	(5.1)	10	(4.5)	25	(4.8)
Total	295	(100.0)	224	(100.0)	519	(100.0)

Source: Interview survey

relationships between workers.¹⁴ Furthermore, high rates of reemployment within the industry and the superiority of a technical school qualification show that this industry requires its workers to have high skill levels.

We can see the importance of technical schools as a main source of new labor. The site locations of 84 schools with courses for animators posted on RecruitSchool.net¹⁵ (as of September 2, 2005) were analyzed to investigate the distribution of technical schools. Technical schools were located in 23 wards in Tokyo (20 schools), Osaka City (12 schools), Nagoya City (9 schools), and other major cities across the country. In the case of an animation school in Tokyo with a branch located in Osaka, students enrolled at the Tokyo base were from the Kanto region (65.1 %) and the Chubu region (14.9 %), while those at the Osaka branch were from the Kinki region (74.1 %) and the Chugoku region (11.2 %) (Table 2.7). The locations of the high schools attended by freshmen at the technical schools were restricted within narrow areas centered on the cities where the technical schools are located. The hometowns of freelancers, in contrast, were widely distributed across the country, including the Kanto region (nine respondents), the Shikoku region (three respondents), the Tohoku region (two respondents), the Hokuriku region (two respondents), the Tokai region (two respondents), Hokkaido (one respondent), and the Kyushu region (one respondent). Among respondents from the Kanto region, two freelancers each were from Tokyo, Kanagawa, Saitama, and Ibaraki prefectures, and one was from Tochigi Prefecture. This means that the proportion of freelancers who are originally from Tokyo is not high. In addition, an interview with one studio revealed that studios

¹⁴One interviewee referred to a senior worker (hereafter “X”) who had taught him skills as his “master.” Likewise, he referred to himself as an “X-monka” (descendent of X) and as from the “X-juku” (the school of X). Even though the interviewee is not currently taught by X, he still has a personal relationship with X.

¹⁵This is one of portal sites of education institutes targeted students preparing for entrance examinations. Students collect information about institutions they want to enter through this site. The site name was changed to Shingakunet. See <http://shingakunet.com/> (accessed February 1, 2014).

scout for capable new talent among current students by sourcing out their animators as teachers at the technical schools.¹⁶ For these reasons, technical schools act as the gateway to the animation industry, at least for provincials.

2.4.2 *Social Relationships of Freelancers*

2.4.2.1 Supply System of Freelancers

Approximately 65 % of payment to freelancers is based on their productivity; studios do not guarantee them a minimum wage (Table 2.8). This particularly unstable payment system is very common among workers in the “key picture” and “rendering” fields.

Table 2.8 Freelancer salary characteristics by field

Job fields	Length of service	Monthly income	Type of payment
Planning	10–	20–	Fixed
Director	5–10	15–20	Fixed
Director	5–10	20–	Fixed
Director	5–10	20–	Percentage
Director	10–	15–20	Piecework
Rendering	5–10	15–20	Piecework
Rendering	10–	20–	Fixed
Rendering	10–	20–	Piecework
Rendering	10–	20–	Piecework
Key picture	1–3	10–15	Piecework
Key picture	3–5	5–10	Piecework
Key picture	3–5	10–15	Piecework
Key picture	3–5	15–20	Piecework
Key picture	3–5	15–20	Piecework
Key picture	3–5	15–20	Piecework
Key picture	5–10	10–15	Piecework
Key picture	10–	20–	Piecework
Coloring	1–3	5–10	Percentage
Coloring	3–5	15–20	Piecework
Coloring	10–	15–20	Piecework

Source: Questionnaire survey

Workers in “planning” includes “planning and director” and “key picture” includes “key picture and coloring.” “Monthly income” is in 1,000-yen units

¹⁶According to one technical school’s literature and as confirmed in an interview, the school tries to enhance its value by inviting active creators from famous animation studios. For technical school students, this is not only an opportunity to meet successful animators in person, but also a chance to be scouted and join the industry earlier than others. This relationship between studios and technical schools is beneficial for both sides. Moreover, technical schools function as the entry point to the animation industry.

The distribution of salaries shows that 65 % of workers (13 respondents) receive less than 200,000 yen monthly. Seven out of the eight “key picture” workers receive less than 200,000 yen, while three out of the four “rendering” workers earn more than that. Despite the fact that a freelancer’s working hours and workload are unstable, none of those surveyed had a second job.¹⁷

The relationship between duration of employment and salary explains why workers with less than 5 years of employment, who tend to work only in “key picture” and “coloring,” have smaller salaries, while workers with 5–10 years’ experience work in “key picture,” “rendering,” and “director.” More than 10 years of employment enables workers to choose a career path, which helps them become specialists in “key picture,” “coloring,” “rendering,” “director,” or “planning.” Furthermore, the interview results suggested that low wages in the “animation picture,” “key picture,” and “coloring” jobs lead to a high separation rate among young workers in the early stages of their careers.

2.4.2.2 Opportunities for Freelancers to Obtain Work

Although most freelancers received orders exclusively from one studio, some did receive orders from several studios. Table 2.9 shows that, on average, each freelancer received orders for 2.7 titles from 1.7 studios in October 2005. One freelancer responded that he received ten titles from five studios in a single month, and nine out of the 20 freelancers had more than one friend who could act as an intermediary for obtaining work. Based on the number of intermediaries, studios and titles, it can be concluded that the relationship between freelancers in the “key picture” or “rendering” fields and the studios is flexible. In addition, an interview with a former director indicated that freelancers are beneficial to the studios because their use requires directors to maintain connections with many freelancers; this helps studios to produce animated films with the expected product quality and maintain a necessary workforce along with their flexibility. Thus directors routinely try to build closer ties with freelancers by supplying them with jobs. Directors sometimes offer jobs to freelancers in slow seasons.¹⁸ Moreover, freelancers in the creative and

¹⁷According to the result of statistical survey by National Tax Agency in 2006, the average annual income in 2005 of wage earners in their early 20s was 2.67 million yen, while that of those in their late 20s was 3.77 million yen. Average annual income categorized according to duration of employment shows that employees who have worked for 4 years or less earn 3.88 million yen annually. The two industries with the lowest average annual income are agriculture, forestry and fisheries, and the mining industry, tied at 3.04 million yen. Compared with these data, the income of freelancers reported in this chapter is not extraordinarily high.

¹⁸An interviewee stated that his studio’s directors have a list called a “telephone directory,” which contains the telephone numbers of other studios and workers. Directors telephone freelancers to ask them if they want work. Another interviewee working as a director emphasized the “thickness of the ‘telephone directory’ and the courage that it takes to call” freelancers to get help with the studio’s work while not running out of orders. This director recognizes the importance of maintaining the studio’s cultivated connections and the necessity of making new connections.

Table 2.9 Staff work situations in 1 month

Job fields	Connections (persons)	Studios	Titles
Planning	3	1	3
Director	0	1	1
Director	0	1	1
Director	0	3	3
Director	5	1	2
Rendering	0	1	1
Rendering	6	2	2
Rendering	Many	3	3
Rendering	Unknown	2	2
Key picture	0	1	3
Key picture	0	1	1
Key picture	3	1	4
Key picture	3	2	2
Key picture	3	3	4
Key picture	5	5	10
Key picture	5	2	3
Key picture	One studio	1	2
Coloring	0	1	2
Coloring	0	1	3
Coloring	0	1	2

Source: Questionnaire survey

production departments, such as “key picture” and “rendering,” are sometimes offered jobs in similar situations. The reason why freelancers in the “key picture” and “rendering” departments can obtain jobs from several studios seems to be part of a risk-avoidance strategy against unstable employment. In addition, because “key picture” is earlier along the career path than “rendering,” freelancers in “rendering” obtain work using connections made when they worked in “key picture” or before then (See also Chap. 5).

The tendency of workers to rely on connections with particular people was also seen as a reason for freelancers to continue to work in Tokyo. Sixteen out of the 20 freelancers answered negatively concerning any intentions to continue to work in the animation industry while moving out of the Tokyo area. The major reasons for continuing to work in Tokyo consist of the following (Table 2.10): the general economy of agglomeration, including such factors as “large number of production studios” (12 respondents) and “convenient transportation” (seven respondents); personal connection/personal preferences, such as “ease of obtaining inside industry information” (seven respondents), “presence of person I want to work with” (five respondents), and “large number of colleagues” (five respondents).¹⁹ Given the fact that a large number of colleagues is thus regarded as a considerable benefit and given what we have seen regarding the skill-teaching relationships among workers, it can be concluded that developing personal networks is an important resource for freelancers whose employment status is unstable.

¹⁹ The others include one worker from Tokyo and one not specified (one respondent).

Table 2.10 Freelancers’ reasons for continuing to work in Tokyo

Reasons	Responses
Large number of production studios	12
Ease of obtaining inside industry information	7
Convenient transportation	7
Large number of colleagues	5
Presence of person I want to work with	5
Ease of enjoying services on the job	2
Availability of many side jobs	1
Attractiveness of Tokyo itself	1
Others	2

Source: Questionnaire survey
Twenty freelancers replied with multiple answers

2.5 Conclusion

This chapter examined the agglomeration structure of the animation industry in Tokyo from the perspectives of business transactions and the labor market. The agglomeration of the animation industry in Japan consists of an interplay of the following four factors: (1) animation studios; (2) workers; (3) clients and related content industries; and (4) technical schools. An illustration of the model of this agglomeration in Tokyo is provided in Fig. 2.10.

Animation studios can be categorized into two types: primary contractor studios, which produce and manage animation projects; and professional subcontractor studios, which receive orders for specialized processes. Many clients, such as TV stations, publishers, and video game developers, are concentrated in Tokyo. In general, primary contractors establish fixed relationships with clients located in the CBD and relay most of their orders between firms outside and inside the industry. Thus animation studios agglomerate in Tokyo to achieve a close proximity to their clients.

In the industry, business transactions between partners depend on short delivery times, even as short as 1 day, and the contents of the transactions are fluid. These transaction characteristics make it difficult to record contract details. Therefore, studios generally do not make contract documents, yet they must mutually trust one another because of the risk of uncertainty associated with successfully completing a contract. Mutual trust and flexible transactions between business partners in the same industry sustain the agglomeration of animation studios in western Tokyo. In the case of primary contractors, although their main clients are located in the CBD, their business is more often conducted with others in the same industry than with their main clients, so primary contractors, too, tend to be located in western Tokyo.

In addition, some studios have formed international relationships with overseas animation production studios, such as South Korean or Chinese studios, to compensate for their lack of complementary skills and labor shortages. They have developed coordinated transportation systems, such as professional delivery and association delivery, making it possible for work to be delivered in person on the

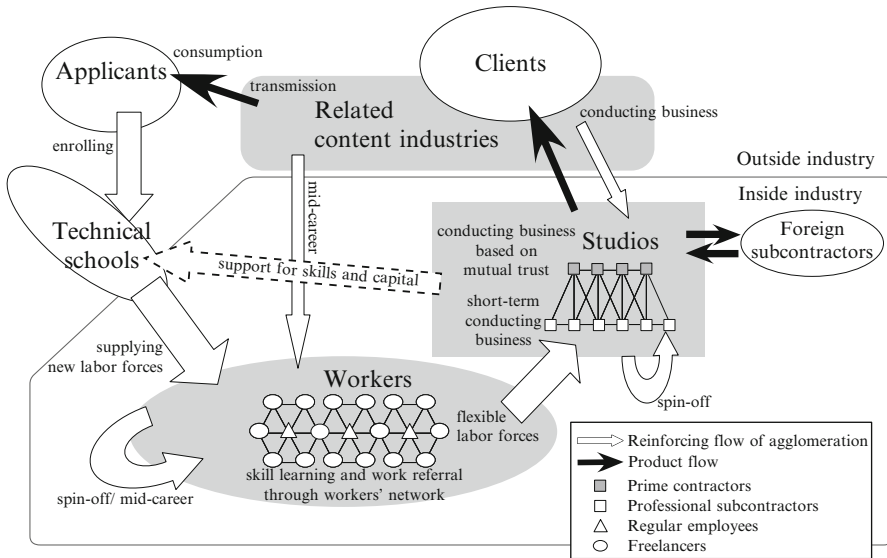


Fig. 2.10 Agglomeration structure of the animation industry in Tokyo

day of its completion. Access to other Japanese studios operating these delivery systems and access to an international airport are defining elements for the agglomeration of the animation industry in metropolises.

As for the labor market, most of the incoming workers and new graduates either leave the industry or are reemployed as experienced workers or freelancers. Freelancers, including both new graduates from technical schools and experienced workers from other studios, accept parts of the animation process as subcontract work to maintain their skills and have flexible employment. Freelancers acquire skills and receive on-the-job training from senior workers. They obtain jobs through personal connections both within and outside the studios to avoid income instability. Furthermore, freelancers are essential to the Japanese animation industry, partly because of the way in which the industry has specialized. The abovementioned skill learning systems and the avoidance of instability through networking are both easily available to freelancers in Tokyo, as many animators live in Tokyo and thus have access to each other, especially at work.

The market for animation has expanded all over Japan. Some animation fans in Japan hope to work in the animation business one day, perhaps entering the industry through one of the technical schools, which are the largest source of labor. Technical schools also play a role in gathering freshmen from rural areas and turning them into skilled workers. Furthermore, animation studios and technical schools have relationships in which the studios send workers to serve as teachers in order to find new talent. Only a few animators come to the industry from related content industries.

The agglomeration in western Tokyo is sustained and strengthened by mutual interactions between the constituent actors in the animation industry in Tokyo.

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