Cession, Succession and Business Continuation
of Edo Merchants

Changmin Lee[1]

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Abstract

The purpose of this paper is to reshape the current perception of the Edo merchants in Japan between the 18th century and the first half of the 19th century. This period began a long wave of modernization with a broad range of businesses engaged in fierce market competition. This article uses a new data set to show how long the Edo merchants survive and the deciding factor in business duration. We found that the number of years of business survival of the Edo merchants averaged around 15 years. We also found that the transfer of business rights (*kabu*) by the cession method, which was based on trade among non-relatives, was most common compared to the succession method based upon kinship. Moreover, the store establishments founded by the cession method of *kabu* were likely to survive much longer than those by the succession method. The business duration of store establishments concentrated in specific districts forming clusters was longer than that of those scattered throughout Edo city.

Keywords: succession, transfer, *kabu*, mercantile house

JEL code: N80, N85, N90, N95

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[1] Changmin Lee is currently working as an assistant professor in the Department of Social Engineering, Tokyo Institute of Technology (Tokyo Tech.), Tokyo, Japan. He has published several papers in both international and national journals. His research interests include comparative economic analysis, economic history and business history.

1. Introduction

The Edo period was a time of persistent economic development spanning approximately 260 years; therefore, it signaled the beginning of a long wave of modernization. Various trades developed during this period, which was characterized by a dynamic market in which businesses repeatedly rose and fell. The commonly accepted theory is that commerce in the Edo period was based on the *ie* (家) *system*. Merchant families are considered business entities that emphasize the continuation and development of their trade name, *yago* (屋号), through successive generations, and conduct their commercial activities as a family business (Kasuya 2012, p.37).

However, the perception of Edo merchants depicted by this theory was based on a case study of the major merchants represented by the Mitsui family. Thus, the current perception of Edo merchants as a whole is limited to a small number of long-established merchant families established through successive generations. To challenge this current view, this study aims to broaden the literature by encompassing merchants outside the Mitsui family, and examines a wide sample of merchants that includes tens of thousands of individuals.

We will challenge the common perceptions of merchants in Edo city by examining merchant families operating wholesale and retail establishment dealing in clothing and fabric, spanning several generations as a family business, based on an analogy of samurai society[2]. To reshape the stereotype of Edo merchants, a quantitative analysis was conducted based on a data set of merchants and shops in Edo city.

The results of this analysis revealed the following facts. First, the average business duration period was around 15 years. Second, half of the *kabu* (株) transfer, a sort of deed transfer on the rights of ownership, occurred in the context of merchants ceding their business to non-relatives whereas the business was succeeded by blood descendants in only 10% of cases. Third, merchants starting their own business by acquiring *kabu* from non-relatives were more likely to survive longer than merchants operating inherited stores. Forth, the most common stores in Edo city were not clothing and fabric shops but rice and fuel shops. Fifth, the business duration of wholesale and retail establishment dealing with clothing, fabric, paper or pharmaceuticals, which were concentrated in specific districts, was longer than that of stores handling rice and fuel, which were scattered throughout Edo city.

The structure of this article is as follows. Section 2 describes the compilation of the database. Section 3 analyzes the number of years of business duration. Section 4 analyzes the circumstances around *kabu* transfers. Section 5 and 6 analyze the correlation between business duration and *kabu* transfers and business duration and business agglomeration, respectively. Section 7 summarizes the overall findings in this article.

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[2] For a general image of Edo merchants, please refer to Suzuki (2008).

2. Compilation of an Edo merchant database

The information source for this study is *Edo Shōka Shōninmei Dēta Sōram (A Comprehensive Overview of the Data concerning the Names of Merchants and Merchant Families in Edo*, hereafter "*NMMF*")*, which comprises seven volumes (ed. Tanaka, Y. and Hiiragi, T. 2010.) Investigating the real state of Edo-period merchants is an extremely difficult task. This is because, aside from the preservation of a large amount of historical sources retained by the Mitsui family—who ran clothing and money exchange businesses—all that remains are fragmented documents held by major merchants such as Konoike and Sumitomo. Only the Mitsui family possesses documentation with a content and volume adequate for analysis from a business history perspective. This means that there has been an accumulation of research that has exclusively targeted the Mitsui family.

As part of this research, all seven volumes of *NMMF* were published in one go. This publication provides an account of merchants who conducted their business in Edo city. It is a collection of 145 types of registries, and lists the trade names, personal names, addresses, type of business, year, and, where known, articles detailing changes in deeds (business ownership) by arranging them in name order. The 145 types of registries include many different types of historical documents. For example, there are registries produced among merchant guilds, merchant registries produced by the Bakufu Shogunate to strengthen its control, and there are also guidebooks of famous shops privately produced for shoppers. It includes almost all possible data available from existing historical documents. With a total of 74,000 items, this is a staggering amount of data considering that it was compiled by one individual.

By using this valuable accomplishment, this study seeks to change the perception of Edo merchants that has depended exclusively on information from the Mitsui family. The study therefore represents an attempt to turn from "narrow and deep data," i.e., Mitsui data, towards "wide and shallow data" that covers Edo merchants as a whole.

So, how did we extract information from *NMMF* ? First, we selected the targets of analysis. Iseya accounts for the majority of the trade names contained in all seven volumes of *NMMF*. Iseya fills 327 pages, or 8.1% of all 4,058 pages from volumes one to six[3]. Iseya is an exceptionally popular trade name that far exceeds the trade names following in second place below. In second place is Yorozuya, followed by Mikawaya in third place, and so on. In this study, we targeted three of these trade names for analysis, namely Iseya, Yorozuya, and Echigoya, each of which were selected for different reasons. Iseya was selected because it accounts for a large proportion of all trade names. Yorozuya was selected because it is in second place and for its rarity in that, unlike most cases, it does not use the name of one of the provinces of Japan (the province of Japan from where the owner came). Finally, Echigoya was selected because it is a Mitsui family trade name. A total of 499 pages

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[3] We exclude volume seven because it concerns merchants who operated without a trade name.

Table 1 Number of Years of Business Duration

	Iseya	Yorozuya	Echigoya	Total
Total number (No. of cases)	1,231	423	323	1,977
Min. value (years)	0	0	0	0
Max. value (years)	148	113	171	171
Mean value (years)	16.9	14.9	12.1	15.7
Median value (years)	13	13	11	13

concern these three trade names, equivalent to 12.3% of the whole work.

Following this, we created the *NMMF* database for these three trade names by inputting data such as the personal names, addresses, type of business, and year, etc. for each case. There were frequent cases of different people sharing the same personal name, so we identified each individual by using information such as their address and type of business, etc. We completed a pool of data covering 3,939 individual merchants.

3. Business duration

We analyzed how long each merchant was able to continue their business on the list. Only in an extremely small number of cases is the time of business commencement and time of business termination clearly specified. Of the 3,939 merchants, 1,977 individuals (about half of the total) are cases in which it is possible to know that the business existed at least from point-in-time A, when details start appearing on documents, until at least point-in-time B. In other words, it is possible in such cases to ascertain business duration along a temporal axis as a "line" rather than as definite "points." There were actually 1,998 cases where documents show the time of business termination, but in 21 of these cases, only the time of business termination is known. The statistic of 1,977 was determined after excluding these 21 cases.

There are cases where documents clearly specify when the business commenced or when it was terminated. For example, they may state that a merchant acquired *kabu* (deed), which means a business license granted by the public authorities, at point-in-time A, or suspended the business at point-in-time B. Therefore, to use as much of the data as possible, we measured the start and end points verified from the documents and calculated numerical values indicating that "business continued for at least this period." The results are shown in Table 1. The mean values for each trade name indicate that Iseya has the highest mean value at a business duration of 16.9 years. In second place is Yorozuya at 14.9 years, and then Echigoya at 12.1 years. The overall mean years of business duration is 15.7 years. The median for each trade name is even lower at 13 to 11 years.

Table 2 Average Years of Business Duration

20 years or less	87%	0-2 years	11%
		3-5 years	15%
		6-10 years	18%
		11-15 years	21%
		16-20 years	22%
21 years or more	13%	21-40 years	4%
		41-100 years	8%
		101 years or more	1%

Thus, most businesses were not in business for much longer than 20 years. Such was the short lifespan of most businesses. Considering that, owing to the nature of the data, the numerical value was that the business was sustained for at least this period, the actual mean years of business duration is arguably higher to some degree. Although this may be the case, it would still be a far cry from the perception that the business reins were handed down through multiple generations. Such a short period of business operation does not even span one generation.

Included among these merchants are an extremely small number of retailers, but the merchants are mostly represented by wholesalers and intermediaries. In other words, they operated large-scale businesses and held high positions in the commodity distribution system. Despite being a group of top-class merchants, the average duration of the business was less than 20 years, a figure that considerably undermines the perception of Edo merchants that has been accepted up until now.

We then further divided years of business duration to display the results in Table 2. In the 20 years or less, Table 2 shows that each sub-period is around 20%, so no specific sub-period stands out. In other words, there is no such phenomenon in which a threat to the survival of the business arises in a specific year[4]. Instead, for the first 20 years of business, the risk of losing the business is distributed evenly across each sub-period. Only 13% of the businesses were confirmed to have survived for more than 20 years.

It reveals that Edo merchants repeatedly entered and withdrew businesses in cycles with a less than 20 years. These cycles are so short that they do not even span one generation. The analysis also revealed that there was no concentration of risk in the early years of the business and instead, the risk of losing the business was distributed evenly across the first 20 years of business.

4. Circumstances around *kabu* transfers

We have learned how Edo merchants repeatedly entered and withdrew businesses in short cycles less than 20 years. This section focuses on the circumstances around *kabu* transfers. During the Edo

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[4] There is a saying called "cisis of the seventh year" in Japan.

Table 3 Reasons for *kabu* transfers

Cession (to non-relative)	49%
Succession (to descendent)	9%
New *kabu*	16%
Underwriting the remnant of a closed business	3%
Closure of business	23%

Table 4 Circumstances of business commencement and termination

In business commencement		In business termination	
Cession	49%	Cession	49%
Succession	9%	Succession	10%
Newly established kabu	36%	Business closure	41%
Underwriting closed business	6%		
Obs.	701	Obs.	866

period, merchants held the rights of a business called *kabu*. Merchants would commence business by first obtaining the *kabu*, perpetuate their business by passing the *kabu* on to their descendants, and terminate business by ceding their *kabu* to another person or by otherwise declaring their business closed.

Table 3 shows the results of aggregating the different circumstances around *kabu* transfers. It indicates that in the majority of cases—almost half of the total—the *kabu* is transferred by cession, and that succession accounts for less than 10% of all transfers. This table also shows that in 16% of cases, a new *kabu* was established, and in 23% of cases, the business was closed down without transferring the *kabu* to anyone else. These two statistics suggest that kabu was not always passed onto others without problems. Thus, succession falls just under 10%, and cession was the main form of transfer. Such results bring to light a new and groundbreaking fact, namely that the taking over of businesses during the Edo period was carried out upon the principle of "cession," a principle that the research until now has completely ignored.

In Japan at this time, the blood relation principle held sway for both the samurai and peasantry. Accordingly, parents would perpetuate their social ranks and their fortune by passing them on to their children. In the case that they had no eligible children, they would take in a *yoshi*, an adopted child or son-in-law, leave the inheritance to him, and thus uphold the principle of blood heredity, albeit pseudo-blood heredity in their case. Despite this overarching feudal principle, in the case of merchants, rights of ownership were taken over via cession between people not related by blood.

Table 4 organizes the data on the circumstances around *kabu* transfers according to cases of new business commencement and cases of business termination. Regarding business commencement, 49% involved cessions (to non-relatives), 36% involved newly established *kabu*, 9% involved successions (to descendants), and 6% involved the undertaking of closed businesses. Regarding business termination, 49% involved cessions, 41% involved business closures, and 10% involved successions.

When comparing these two sets of numerical values, one notices that the ratios for the different reasons for commencement and termination—i.e., circumstances around entering and withdrawing businesses—neatly correspond. Those who commenced business by receiving the *kabu* from someone and those who, conversely, abandoned their business by ceding their *kabu*, both account for 49% of their respective samples. The respective values for successions are also finely matched, with merchants succeeding the business from their parents, and merchants handing the business over to their sons both representing around 10% of business commencements and business terminations respectively.

As for other circumstances, 36% of those commencing business did so by newly establishing *kabu*, and 6% did so by undertaking a closed business. The combined value of these two ratios is 42%, which roughly matches the value of 41% for those who, while retaining "dormant *kabu*," substantively abandoned their business in the end. Overall, around 50% of all transfers involved cessions, 10% of all transfers involved successions, and 5% of all transfers involved undertaking businesses that had closed. Thus, 65% of the cases of *kabu* being taken over were cases involving the proprietary rights of an existing *kabu* being passed from the old to the new owner. As for the remaining 35%, such transfers involved a process of replacing the *kabu* itself, i.e., the old *kabu* became void and a new *kabu* was established in its place.

Thus, in business commencement and business termination, or to put it another way, the entrance and withdrawal of a business, the ratios between *kabu* takeover and newly established *kabu*/voided *kabu* are neatly balanced as shown in Table 4. From this we can understand that *kabu* maintained a stable state as a whole with the overall number of *kabu* not rising or falling, and the ratio of newly established kabu not rising above or falling below a level of 35%.

Despite the fact that individual merchants frequently entered and withdrew businesses in short less than 20 years cycles, the overall number of *kabu* remained stable with no change as did the ratio of "taken over *kabu*" to "newly established *kabu*." The dynamic equilibrium that can be observed here resembles the equilibrium witnessed in the way a living organism's cells retain an overall uniformity despite the fact that individual cells constantly generate and die on a daily basis.

5. Relationship between business duration and *kabu* transfers

In this section, we analyzed number of the years of business continuation (hereafter "YBC") combined with the circumstances around the transfer and the types of business. In the first place, we were interested to know whether business stability was influenced by differences in the circumstances of business commencement, i.e., whether business commenced by acquiring an existing *kabu* through cession, or succession, or whether it commenced by newly establishing *kabu*.

**Table 5 Circumstances around business commencement and YBC**

| | | Circumstances of business commencement | | | |
		Cession	Succession	New kabu	Undertaking closed business
Iseya	No. of cases	128	23	73	23
	Mean of YBC	18.1	5.8	8.4	3.9
	Median of YBC	7.0	4.0	5.0	3.0
Yorozuya	No. of cases	38	18	23	10
	Mean of YBC	7.8	7.4	12.7	3.9
	Median of YBC	6.0	5.5	9.0	3.0
Echigoya	No. of cases	32	2	25	2
	Mean of YBC	6.3	3.0	7.2	2.5
	Median of YBC	5.5	3	6	2.5
Total	No. of cases	198	43	121	35
	Mean of YBC	14.2	6.3	9.0	3.8
	Median of YBC	6.0	5.0	6.0	3.0

Table 5 shows the calculations of the mean and median of YBC for each commencement circumstance. The results reveal that YBC does differ depending on the circumstances around business commencement. The circumstances around business commencement rank as follows, with the mean of YBC getting progressively shorter in the following order: Cession > New *kabu* > Succession > Undertaking closed business. However, in the case of *Yorozuya* and *Echigoya*, the order is New *kabu* > Cession. YBC is strikingly low for undertaking a business that has closed. This is probably because on the one hand, taking on a *kabu* that was abandoned by another merchant after he closed the business would not have many prospects for good results, and on the other hand, a new *kabu* established after having carefully ascertained the needs of the market will have high prospects for success.

An interesting finding is revealed by comparing the results for cession and succession, two forms of taking over *kabu* that have contrasting principles. The form that gives greater stability of business as represented by YBC is not succession, which is based on the blood hereditary principle, but cession, which occurs between two non-relatives. While succession gives a mean average of 6.3 years, cession gives a mean value of 14.2 years—twice as high. Although the median does not show such a difference, cession still scores higher at 6 years compared to 5 years. This means that compared to succession, where the business passes down through a blood relation (from father to son), it is cession that offers a greater opportunity for transferring the business to someone who is well-suited for the role and consequently does well.

There is one other interesting finding gleaned from the analysis of the relationship between YBC and the circumstances around business commencement. This is that those circumstances around business commencement that give longer average YBC are also observed in a higher number of cases. The order in which the average number of YBC relate to circumstances is, as stated above,

Figure 1 Number of cases and YBC
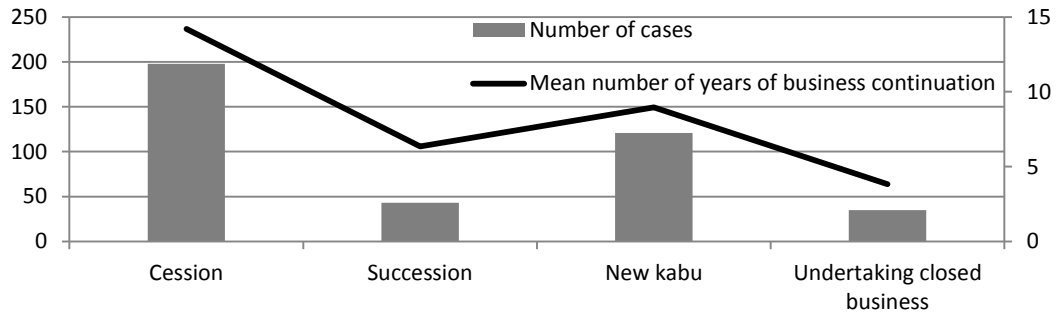
cession > new kabu > succession > undertaking of closed business. Likewise, the number of cases, which represents the preferences of the merchants, is highest for cession, and this is followed by new *kabu*, succession, and finally undertaking of closed business. This is depicted in the double Y axis graph in Figure 1, which shows the relationship between number of cases and YBC. The linkage between the two can be clearly seen.

The close correlation between number of cases and YBC signifies that when it came to transferring the *kabu*, the more frequently selected option was the one promising longer business continuation. Taking on a closed business involves high risk and there are few prospects for success, and so very few people opted for this. Similarly, passing on the business to one's son had a low success rate, so there were few parents who chose to go down this road. On the other hand, commencing business through cession or newly establishing *kabu* offered a high chance of success, consequently, many selected these options. The more an option can promise long years of business continuation, the more popular that option will be. The Edo merchants made extremely rational choices.

In the second place, we examine the relationship between YBC and business type. What type of business is the most common in Edo city? As represented by Mitsui's case, were clothes and fabric shops the most popular? Table 6 presents some interesting information on the most common business in Edo city. These are not clothes and fabric stores but rice and fuel stores. According to the investigation of *Bakufu* in 1851, food stores including rice stores account for 33.1% and fuel stores including firewood and charcoal stores comprise 33.5% of the total number of stores. If these two figures were combined, they would constitute about 70% of the total stores in Edo city. On the contrary, the ratio of clothes and fabric stores is only 5.8%, and paper, hardware and pharmacy stores account for just 7.6%.

What is the difference between food and fuel stores and clothes, paper and pharmacy stores? The most noticeable feature of food and fuel stores is that they deal with goods essential for daily living. Since people purchased food and fuel from neighborhood stores, there were many such stores in Edo city as analogous to the convenience stores of present day Japan. On the other hand, clothes, fabric,

Table 6 Types of business in Edo city (as of 1851).

Type of business			
food	rice wholesaler	6.6%	
	rice retailer	21.2%	33.1%
	food shop except rice	5.3%	
fuel	firewood and charcoal wholesaler	6.6%	33.5%
	firewood and charcoal retailer	26.9%	
money exchange business and finance business			6.6%
clothes and fabric			5.8%
paper, hardware and pharmacy			7.6%
personnel-service business, express messenger			6.3%
oil and candle			2.6%
others			4.5%

Source: *Shodonyanamaechō* (Data on the names of merchants) 1851

Table 7 Average YBC by business type

Types of business		Average YBC
food	rice wholesaler	12.3 years
	rice retailer	8.1 years
fuel	firewood and charcoal retailer	12.9 years
money exchange business		16.7 years
finance business		51.1 years
clothes and fabric		33.3 years
pharmacy		38.0 years
paper		29.8 years

paper, and pharmacy were regarded as luxury goods, which have high income elasticity. Accordingly, these stores were fewer in number than the stores selling essential goods. We therefore need to change the stereotype that clothes and fabric stores were the most common businesses.

  Table 7 shows the average YBC categorized by business type. We see that food and fuel stores have a shorter duration than clothing, fabric, pharmacy and paper stores. In section 3 above, we found that the overall mean years of business duration was 15.7 and that 83% of the total stores faded away within 20 years. In the context of this, the features of stores for food, fuel and money exchange business seem different from those for finance business, clothes and fabric, pharmacy, and paper. However, finance business called *fudasashi*, which has the longest business duration of 51.1 years, as shown in Table 7, is an exception because it has a special connection with *Bakufu*. *Fudasashi* a business that required mediation rice to be paid to *Hatamoto-Gokenin* from the Shogunate in Edo period used to take a commission by the receipt, transportation, and sale of rice and made a good profit with usury utilizing collateral as stored rice. Merchants managing *fudasashi* business had some advantages on the capital scale and used the connection with *Bakufu*; therefore, their business could survive longer than any other businesses. The following question arises: Why did the difference in the length of business duration by business type occur, except for the special finance business?

6. What decided the length of business duration?

One possible answer to this question is relationship between YBC and business agglomeration. Business agglomeration is the regional concentration of stores in a specific business district. It is based on the proportional relationship with a business area. The central-place theory provides a theoretical frame to this relationship. The original story in central-place theory applied to towns serving a rural market; however, a similar story can be applied to business districts within a metropolitan area. Small neighborhood shopping districts are scattered across basins that surround larger districts with more specialized stores, all eventually concentrating downtown, with great department stores and high-end boutiques. Indeed the hierarchical image is so natural that it is hard to avoid describing things that way[5].

There are two indexes to measure the degree of business agglomeration or, in other words, the extent of business area. The first is the Absolute Agglomeration Quotient (AAQ), which can be expressed as follows:

$$AAQ_{ij} = \frac{S_{ij}}{S_i}$$

where S_{ij} is the number of stores of i type of business in j area, and S_i is the number of stores of i type of business in Edo city.

We calculated the AAQ on 20 types of business, dividing the whole Edo city into 30 areas. Figure 2 and Table 8 show, respectively, these 30 areas in a map and the computed AAQ values for some component of all business types in the specific districts. In Table 8, we see that food, fuel and money exchange businesses are scattered throughout Edo city, while finance business, clothes and fabric, pharmacy, and express messenger businesses are concentrated in specific districts. Although many of the stores and all kinds of businesses are concentrated and form a big shopping street in districts 2 and 3 (that is, *Nihonbashi*, the center of business in Edo city), the finance business and express messenger business are agglomerated in district 17 (*Asakusa*) and district 4 (*Sibaai*), respectively. The sales network of food, fuel, and money exchange businesses seems likely to form a regional monopoly akin to a neighborhood store, whereas those of the finance business, clothes and fabric, pharmacy and express messenger are centered in specific districts and cover the entire Edo area. The reason we can conjecture this is that those stores dealing with high value-added and luxury goods had a strong likelihood of concentrating in specific business districts in order to take advantages of

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[5] Lösch showed that a hexagonal lattice is efficient. On the other hand, Christaller suggested the plausibility of a hierarchical structure.
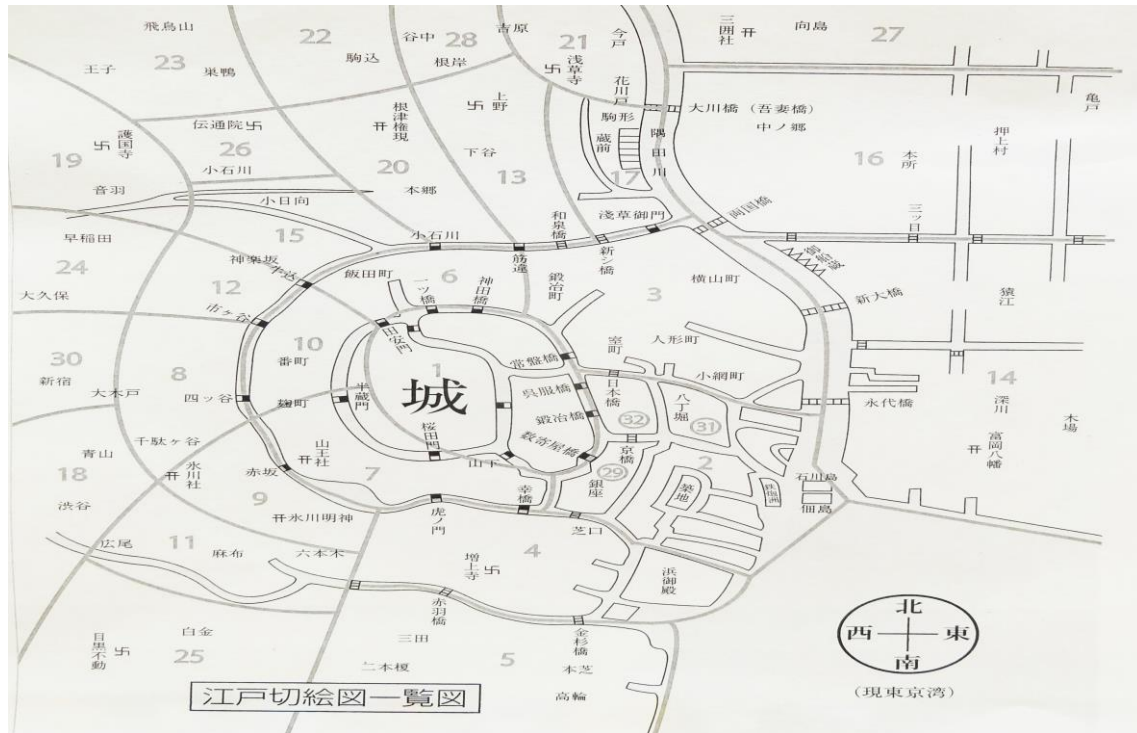
Figure 2 Map of Edo city divided by 30 districts

Table 8 AAQ in Edo city

district	rice wholesaler	rice retailer	firewood and charcoal retailer	money exchange business	finance business	clothes and fabric	pharmacy	express messenger
2	18.5%	9.8%	12.2%	18.1	0.0%	22.7%	8.0%	27.6%
3	13.7%	11.1%	11.1%	12.5	0.0%	50.0%	92.0%	8.6%
4	6.2%	5.1%	5.4%	5.3	0.0%	4.5%	0.0%	36.2%
5	4.8%	5.0%	6.7%	2.3	0.0%	9.1%	0.0%	22.4%
6	0.4%	0.4%	0.6%	2.3	0.0%	0.0%	0.0%	0.0%
7	0.9%	1.9%	1.9%	3.8	0.0%	4.5%	0.0%	0.0%
8	0.9%	4.8%	3.5%	2.6	0.0%	0.0%	0.0%	3.4%
11	0.4%	2.5%	4.6%	5.3	0.0%	0.0%	0.0%	1.7%
12	1.8%	1.1%	2.6%	3.8	0.0%	0.0%	0.0%	0.0%
13	4.0%	5.6%	6.2%	6.4	0.0%	0.0%	0.0%	0.0%
14	6.6%	8.0%	8.8%	3.4	0.0%	0.0%	0.0%	0.0%
15	1.3%	2.1%	1.3%	1.1	0.0%	0.0%	0.0%	0.0%
16	4.8%	6.4%	8.0%	5.7	0.0%	0.0%	0.0%	0.0%
17	15.9%	12.5%	5.2%	7.2	97.6%	0.0%	0.0%	0.0%
18	1.8%	1.6%	2.4%	1.9	0.0%	0.0%	0.0%	0.0%
19	0.4%	0.4%	0.3%	0.0	0.0%	0.0%	0.0%	0.0%
20	4.8%	8.3%	3.4%	3.8	0.0%	0.0%	0.0%	0.0%
21	4.0%	6.8%	8.2%	6.1	2.4%	0.0%	0.0%	0.0%
22	3.1%	1.4%	1.4%	1.1	0.0%	4.5%	0.0%	0.0%
Others	4.0%	2.5%	4.3%	4.0	0.0%	0.2%	0.0%	0.0%
Unknown	0.9%	2.7%	1.9%	2.3	0.0%	4.5%	0.0%	0.0%

clusters. On the other hand, the stores dealing with low value-added and essential goods were evenly distributed across Edo city, thus occupying small sales areas where they could earn a small marginal revenue.

We will expand this idea to the relationship between YBC and store agglomeration. This now raises the question as to why stores that enjoyed larger sales areas survived longer than those with smaller sales areas. It is possible that the top of the hierarchy would survive longer because they have some advantages over capital scale vis-à-vis small neighborhood shops. In order to examine this hypothesis, we consider a simple regression using the second type of measuring index: Relative Agglomeration Quotient(RAQ). It indicates the number of stores in j area over the number of stores in the whole Edo city. We utilize RAQ representing the degree of agglomeration and other dummy variables in the regression, which is given by the following equation

$$RAQ_{ij} = \frac{AAQ_{ij}}{S_j / Stotal}$$

where S_j is the number of stores in j area, and $Stotal$ is the number of stores in Edo city.

Table 9 Agglomeration and business duration

(*Dependent variable : YBC*)

Variables	(1) Coefficient	(2) Coefficient	(3) Coefficient
Relative agglomeration quotient	2.45[*]	3.01[**]	2.76[**]
	(1.07)	(1.90)	(2.23)
Succession	-5.21[***]	-3.50[***]	-4.55[***]
	(3..89)	(4.98)	(7.21)
Tempo reform effect (1842~1850)			0.34
			(0.05)
Kaei revival effect (1851~1857)			-5.25[***]
			(12.99)
Borrowed store	-2.04[*]		-0.75
	(1.04)		(1.01)
From the borrowed store to the	8.49[**]		9.34[**]
own store	(3.31)		(3.18)
Two businesses		2.51[***]	
		(3.35)	
Three or more businesses		3.80[***]	
		(4.02)	
Constant	12.71[***]	10.22[***]	17.89[**]
	(5.34)	(5.01)	(2.69)
adR^2	0.23	0.29	0.28
Observations	1,977	1,977	1,977

Note: [***], [**], and [*] denote significance at 1%,5% and 10% levels, respectively.
        Standard errors are given in parentheses.

Table 9 presents the result of regression on YBC. As seen in columns 1, 2 and 3, the coefficients of RAQ are positive and statistically significant. This means that one standard RAQ increase leads to a longer duration of about 2 to 3 years. In other words, if the degree of agglomeration were higher, the likelihood of store survival would be higher. As seen in Table 8, the degree of agglomeration depends on the type of goods. That is, the business duration of stores dealing with high value-added and luxury goods like finance business, clothes and fabric, pharmacy and express messenger is longer than that of stores handling low value-added and essential goods such as food and fuel. Why does this difference occur by types of product?

The size of capital may be the crucial element deciding the business duration of stores. In order to verify this, we also tested the relationship between YBC and capital scale. If merchants were using borrowed stores, their capital scale would be smaller than that of merchants who had their stores. If merchants were managing several businesses, their capital scale would be larger than that of merchants managing a single business. We utilize these two dummy variables reflecting the size of capital in our model; thus, we can recognize a positive relationship between the capital scale and the business duration. In column 1, we find that merchants who shift the borrowed stores to their own stores could survive about 8.5 years longer. In column 2, we can interpret that merchants who have three or more businesses could survive about 3.8 years longer.

The merchants who were running food or fuel stores deemed the distance from their competitors in the same business as the most important factor for attracting customers because they were selling nearly homogenous products as daily consumer goods. They had a limited sales area protected by *kabu nakama*, which is defined as a group of members who have *kabu*. Moreover, numerous mid- and small-sized stores operated in all districts, while maintaining approximately the same distance to each other. Since the capital scale of food and fuel stores was relatively small, they were likely to fade away shortly after; however, there were still many other merchants substituting them in the market. On the other hand, in a sense, finance business, clothes and fabric, and pharmacy stores had a stronger entry barrier that made them survive for a long time. They were competing with their rivals in the same business not as distance competitors but as added-value competitors, this is, custom-made clothing and dispensing of pharmacy. They operated with relatively big-sized capital and centered in specific areas to take advantage of clusters. Customers in Edo city could not buy from these stores as often as they bought essential goods from food or fuel stores. Nevertheless, finance business, clothes and fabric, and pharmacy stores could broaden their sales network to cover the whole Edo area owing to the big-sized capital, and consequently, they could survive longer than food or fuel stores.

Additionally, the coefficients of succession are negative and statistically significant at the 1% level. If the *kabu* is transferred by succession for new business commencement, the business duration is around 6 years shorter than other cases. As shown in section 4, the method of succession by

transferring *kabu* accounts for only under 10% of the total cases; therefore, it is deemed an inappropriate method to retain the trade name through successive generations. That is to say, the merchant whose *kabu* had been transferred by cession among people without blood relationships could survive longer than family business.

It is worth noting that *kabu nakama* emerged in the 17th century. It was *Bakufu* that promoted *kabu nakama* in the 18th century but changed its policy in 1840(Okazaki, 2005, p.188). Tadakuni Mizuno, one of *shogun*'s council of elders, started the *Tempo* reform which *Bakufu* prohibited *kabu nakama* in 1841, because the *Bakufu* regarded *kabu nakama* as a major cause of inflation (Duffy and Yamamura, 1971, p.399). Commercial activities, however, declined owing to the policy mistakes. To solve this problem, the *Bakufu* once again allowed the merchants to organize *kabu nakama* in 1851 (*Kaei* revival). Against this back drop, we also tested the effects of *Tempo* reform and *Kaei* revival on the year of business duration (dependent variable). As can be seen in column 3 of Table 9, the coefficient of *Tempo* reform effect is positive, but it is not statistically significant. In contrast, the coefficient of *Kaei* revival effect in column 3 is negative and statistically significant at the 1% level. This implies that when the *Bakufu* permitted reorganization of *Kabu nakama* in 1851, many shops including less competitive merchants entered the business, posing high risks of failure.

7. Summary

This study conducted the first ever quantitative analysis of the dynamics of Edo merchants. The analysis based on a database produced from *NMMF* presents us with an image of Edo merchants who repeatedly entered into and withdrew from businesses. The average duration of the business was less than 20 years—a time period not long enough to span one generation. Thus, the analysis revealed a state of instability considerably different from the perception held in commonly accepted theory, which assumes that the universal business goal of Edo merchants was to perpetuate the family business.

In the majority of cases, when merchants not only commence but terminate businesses, the *kabu* is transferred by cession, which occurs between two non-relatives. Succession, which is based on blood relationship, accounts for less than 10% of all transfers. Such results demonstrate that business takeovers were not carried out by succession of *kabu* based on the principles of samurai society, although many researchers have emphasized these as the dominating set of principles of the Edo period.

Moreover, the form that offers greater stability of business as represented by the number of years of business survival was not succession but cession. The business duration for merchants who launch their own business by cession of *kabu* was longer than those who acquired business rights by

succession. Additionally, the investigation of the relationship between business duration and business type revealed that the business duration of retail establishments such as rice and fuel shops were shorter than those selling clothing, fabric, paper and pharmaceuticals.

  Finally, we examined the relationship between business duration and business agglomeration. By calculating AAQ, we found that food, fuel, and money exchange businesses were scattered throughout Edo city, whereas finance businesses, express messenger businesses, and shops selling clothing, fabric, and pharmaceuticals were concentrated in specific districts. From this result, we can infer that the stores dealing with high value-added and luxury goods had a tendency to agglomerate in specific business areas to take advantage of clusters. Because the amount of capital invested in these stores was relatively larger in order to create added value and manage a broad sales area, they could survive longer than stores dealing in low value-added and essential goods scattered evenly throughout Edo city.

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