

Case study of the effect of 'goldfish scooping' at festivals in attracting crowds.

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1.Introduction.

Nagasu Town, Tamana-gun, Kumamoto Prefecture, is famous for its goldfish. The town's symbolic facility is the Goldfish House ("Kingyo no Yakata") and a large model of a goldfish is installed in the station, so one cannot help but be aware of the relationship between the town and goldfish. Goldfish originate from Jiangxi Province, China, and were first introduced to Japan in 1502 in Senshu Sakai no Tsu (now Sakai City, Osaka Prefecture), and records from the Higo Hosokawa clan confirm that goldfish were farmed in present-day Nagasu Town approximately 350 years ago (Note 1). Yamatokoriyama City, Nara Prefecture, and Yatomi City, Aichi Prefecture, are said to be famous for goldfish, and this Nagasu Town, Tamana-gun, Kumamoto Prefecture, is also positioned as one of these areas. Although fish farming was carried out in large numbers during the Meiji era and appears to have been in decline since then, it has become slightly more popular in recent years, with 12 members of the Nagasu Town Fish Farming Association in August 2016 and 14 in November 2017 (Note 2).

The town's administration-run tourist facility, the Goldfish House("Kingyo no Yakata"), also sells galleries, has a 4D theatre ("GyoGyotto 4D! Theatre") and offers goldfish scooping and other activities. This goldfish scooping costs 100 yen per scoop, with four poi and no goldfish to take home, indicating that the main focus is on enjoying the goldfish scooping and interacting with the goldfish (Note 3). For an explanation of the relationship between Nagasu Town and goldfish, please refer to other chapters in this publication, and here we describe the results of an experiment to see how many people the goldfish scooping event drew when held in the suburbs of Tokyo. The customer base (gender, age, etc.) visiting goldfish scooping, and the degree of popularity from the start time to the end of the event, are also observed. At the "Kingyo no Yakata" in Nagasu-machi, goldfish scooping is 100 yen per scoop and four poi, which is unthinkable in the Tokyo suburbs as of 2023, even if the goldfish cannot be taken home. This paper is a record of the practice of goldfish scooping at this Nagasu Town price.

Around the first half of the 1990s, goldfish scooping at festivals in the Tokyo suburbs was generally priced at 300-500 yen per scoop, a poi and the goldfish could be taken home. From what the author (Doi) remembers, the poi were very fragile and it was difficult to catch even one goldfish unless you were used to it. There were crowds of schoolchildren at the goldfish scooping, but they were polarised into two groups: those who caught as many as four or five goldfish and those who could not catch even one. For those who couldn't catch any, the shop staff often gave them a goldfish or two as a

disappointment prize as a souvenir. This means that, on average, the expenditure per goldfish scooping session was about one poi and about three goldfish (calculated excluding labour and utility costs for operation). According to Pet Pedia, goldfish for goldfish scooping cost approximately 20 yen per fish (Note 4), and according to Monotaro, poi (strength ranges from No. 4 to No. 7, the lower the number, the stronger) cost approximately 3,000 yen (including tax) for a pack of 200, which works out to 15 yen per poi (Note5). In contrast, the income was between 300 yen and 500 yen per visit, so it can be considered that the business had a good ratio of cost to income if the water tanks and other equipment had been installed and the environment had been prepared. However, it is said that the number of goldfish scooping stalls at festivals has been decreasing in recent years, and it is probably not easy to prepare this environment (initial investment). Goldfish scooping is a traditional summer night stall, and the author believes that one stall should be set up at each festival.

2. History of the relationship between Nagasu Town and goldfish

As for the relationship between Nagasu and goldfish, as mentioned at the beginning of this article, goldfish were introduced to Nagasu approximately 350 years ago. However, it was not until the Meiji era (1868-1912) that goldfish farming and other activities began to be undertaken in earnest in Nagasu Town. In 1880, Suekichi Teramoto, born in Nagasu Town, started goldfish farming. Initially, Mr Teramoto used egg yolks as bait for the goldfish fry, but after trial and error, he discovered that daphnia were more suitable, and the abundance of daphnia growing in the reservoirs in Nagasu Town made mass production of goldfish possible (Note 6). Later, in cooperation with Katsutarō Matsui, Mr Teramoto began mass production in earnest, laying the foundations for Nagasu as a goldfish town. The goldfish of Nagasu Town then developed further. Matsui's son succeeded his father and became involved in goldfish production, improving the breed of the 'Holland Shishigashira' and expanding its sales channels beyond Kumamoto Prefecture, which until then had been centred on the surrounding areas. The Holland Shishigashira is a goldfish with a large bump on its head, and is a representative breed of goldfish today.

In the post-war period, the goldfish industry reached its peak with the appearance of fure-sellers, who sold goldfish in baskets in Nagasu Town. The fure-sellers were dressed in happi coats and split-toed socks with umbrellas over their heads, carrying tenbinbou on their shoulders, with tubs hanging from both ends, and selling goldfish on station platforms, etc. The largest number of fure-sellers was in the 1950s, when there were about 500 of them (Note 7).

As time went by, the number of fure sellers decreased, but even today there are 14 fish farms in Nagasu Town, as mentioned at the beginning of this article, where goldfish production, including breed improvement, is still active. In recent years, a new breed, the Nagasu Hagoromo Ryukin, has been developed (Notes 8 and 9), and has firmly established itself as a mecca for goldfish production in Japan. The Nagasu Hagoromo Ryukin is an improved version of the red and white coloured Edogawa

Ryukin, and is a goldfish with black as well as red and white.

In Nagasu Town, various local revitalisation initiatives are being undertaken utilising goldfish, for example, the 28th Fire Country Nagasu Goldfish Festival was held in May 2023, attracting approximately 48,000 visitors over the two days of the festival. A goldfish scooping championship, stage events and a flea market were held (Note 10), attracting many people to Nagasu Town with goldfish at its core.

3. Goldfish scooping at festivals

According to an Internet survey conducted by Cross Marketing Inc. on the question of what people do and feel when they hear of festivals (1,100 people were asked), the top response was "going to festivals to enjoy the food stalls" (28.0%), followed by "feeling that it is that time of year again" (25.1%) and "going to fireworks displays" (24.7%). The second most popular answer was 'I feel that the time has come again' (25.1%) and the third most popular answer was 'I go to a fireworks display' (24.7%) (Note 11), indicating that many people are interested in food stalls. In fact, what most people do at festivals is most likely to spend their time walking through the streets lined with stalls and buying a few items.

According to an internet survey conducted by ARINA Corporation (200 people), when asked "What is the first thing that comes to mind at a festival stall?", the most common answer was shaved ice (53 people), followed by yakisoba (38 people) and goldfish scooping (34 people), with Many respondents were highly interested in goldfish scooping (Note 12). These surveys are significant when considering festivals.

4. Goldfish scooping practices

On Monday 14 August 2023, a one-day goldfish scooping stall was opened on a trial basis at the Noryo Bon Dance Festival in front of Urayasu Station in Urayasu City, Chiba Prefecture, in commemoration of the 60th anniversary of the establishment of the Urayasu City Federation of Community Associations. The stall was a joint venture between Nagasu Town, the Urayasu City Federation of Community Associations and Meiji University, and was staffed by eight people: four students from Meiji University, one staff member from the Goldfish Hill, Professor Mizuno, the editor of this book, and the two authors. The stall was open for four hours, from 17:00 to 21:00, and the goldfish used were from Nagasu-machi (some were from the Nagasu-machi antenna shop "Kingyo-Zaka", Hongo, Bunkyo-ku, Tokyo). The shops were located at the tail end of the shopping street lined with stalls for the main event (festival). Although the tail end meant that the stalls would only catch the eye of customers at a later stage, the advantage was that they were away from the densely populated shopping street, making it easier to form a queue.

Prices were set at 200 yen per visit and 500 yen for three visits (one poi per visit), and the goldfish

could be taken home as many as they scooped, which was as unbeatable as the goldfish pavilion in Nagasu-machi. The price was possible only because the stall was not for profit. The following factors were the main reasons for the establishment of this stall.

- (1) Regional PR of Nagasu Town, Tamana County, Kumamoto Prefecture
- (2) Educational objectives of Meiji University students (economic education through shop operation)
- (3) Research objectives by the authors

The clientele was observed in detail over a 90-minute period from 17:00-18:30. To conclude first, about 40% of the clientele were men in their 30s and 40s with their children and about 30% were couples (or women) in their 30s and 40s with their children, all of whom were playing goldfish scooping for the purpose of entertaining their children. The children here were mainly in the lower to middle primary school grades. The remaining approximately 10% were upper primary to junior high school students, who mainly attended the festival in groups and enjoyed goldfish scooping as a whole group. The remaining approximately 10% were couples in their 20s enjoying the festival (Table 1).

The reason why men with children and couples (women) were counted separately is that many male-only couples with children were noticeable. However, as the festival neared its end, the number of women with children was noticeable, suggesting that men may have wanted their children to experience goldfish scooping first, while women may have tended to let their children experience it after they had enjoyed the festival in its entirety. No gender differences were perceived in the children scooping goldfish, with both boys and girls participating by holding the poi in the same way.

Table 1: Main attributes of participants in goldfish scooping

| Attributes | Percentage |
|------------------------------------------------------|------------|
| Males in their 30s and 40s with children | 40% |
| Couples (women) in their 30s-40s with their children | 30% |
| Groups of lower to middle primary school students | 10% |
| Couples of men and women in their 20s | 10% |
| Others | 10% |

Note. Attributes here are based on appearance by the researcher. The survey duration was 90 minutes, starting immediately after the start of the survey. Percentages are based on data from counts of the number of participants.

It should be noted that 82% of the participants requested three sessions of 500 yen instead of one session of 200 yen. Based on observation of the situation at the time, the participants were first attracted by the breakthrough price of 200 yen and actually wanted 500 yen for three times. Because children were practising goldfish scooping three times at the same time, the turnover rate was poor

and it took an average of five to six minutes to finish the three times. This resulted in a lot of waiting time and sometimes long queues. However, it is difficult to judge whether this was a good or bad thing, as the queues had the effect of attracting customers, who looked at the goldfish scooping signs and, as a result, decided that it was 'cheap' and queued up.

Table 2 shows observations on the number of participants queuing at this shop over time.

Table 2: Goldfish scooping participants

| | |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17:00 | Preparations for the opening of the shop (customers stroll around the shopping street) |
| 17:20 | Opening (around 20 customers gather around the shop) |
| 18:05 | 18 people on standby, 11 in implementation (mainly lower primary school children) |
| 18:15 | 20 people wait, 12 people do (conversations around the store such as "Goldfish are cute" and "Aren't there too few?"). (Conversations such as "goldfish are cute" and "aren't there too few?") |
| 18:20 | 24 people on standby, 22 on site. Complaints from those waiting ("I want it to be quicker", "Where do I line up?") |
| 18:30 | Queue formed by Meiji University students (20 people in line, 8 in implementation) |
| 18:40 | 31 people in line (waiting), 21 people in line. A person on standby complained that he had run out of poi, which he had stocked on hand. Complaint from the target store union (for accidentally using the union's power supply). Switched to the power supply of Meiji University, which had been prepared. |
| 19:20 | 55 people in line, 16 implementers, 16 people around implementers. The line was divided into those queuing, those conducting and those watching over and around the conductors. The goldfish scooping is now in full swing as the surroundings become dark. |
| 19:30 | Light rain begins to fall (for about 5 minutes). The battery in the power supply runs out and is replaced; the operation is resumed; no change in the queue or the number of people conducting the operation. |
| 20:45 | 22 people in queue, 8 implementers, 8 around implementers (past peak) |
| 20:55 | 31 people in queue, 8 implementers, 10 people around implementers (rushed in just before the end of the festival) |
| 21:00 | 16 people in queue, 6 people implementing, 6 people around the implementer End of time |

Note. The information was counted by the author.

The average number of people gathered around the goldfish scooping shop (measured as far as the author counted from 20 minutes after the shop opened) was 40.9, indicating that goldfish scooping has the effect of drawing a constant crowd. The number of people in the crowd was also not constant, but

changed over time. Figure 1 shows the number of people gathered around the shop (number of participants) on the vertical axis, with the change in time on the horizontal axis.

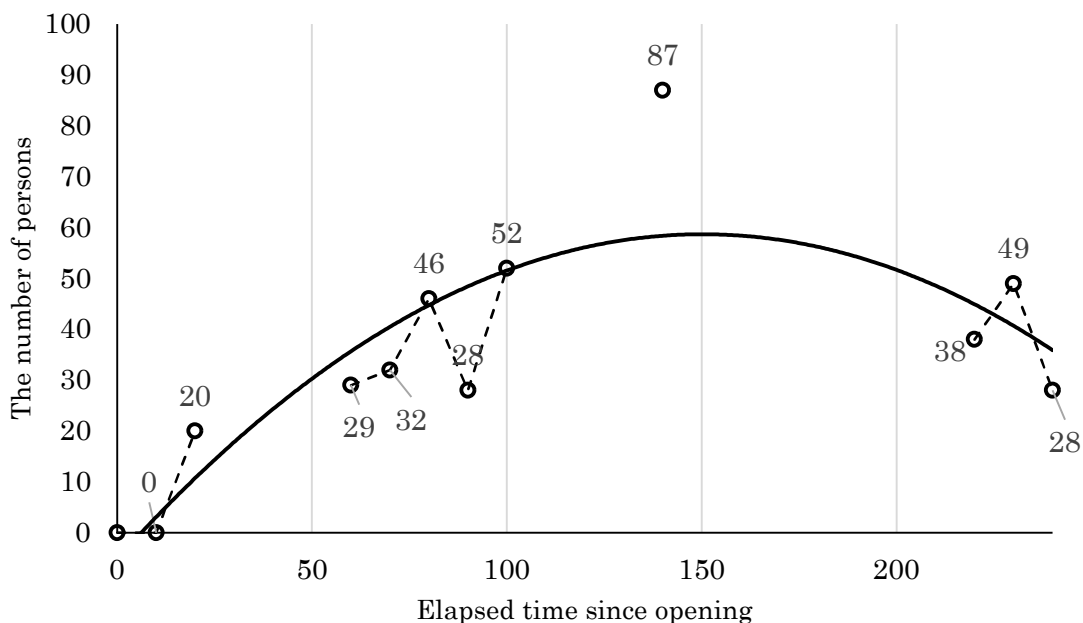


Figure 1: Number of participants since the opening of the shop

Note. The number of participants here is the sum of the number of people queuing/waiting, the implementer and those gathered around the implementer.

There was a gradual peak in the number of participants over time, with a relationship of gradually decreasing numbers as the completion time approached. During the course of the event, there was a temporary decrease in the number of participants due to complaints from customers (at 90 minutes elapsed), and there was some congestion of posts just before the end of the event (at 230 minutes elapsed), but the overall trend can be approximated as a parabola.

If the number of participants is Y and the elapsed time is X, a parabola (a binomial regression curve) can be approximated by the following equation (Formula 1).

$$Y = -0.0028X^2 + 0.85X - 5.2 \quad \text{— Formula 1}$$

$$R^2 = 0.73$$

Y: Number of participants

X: Elapsed time (minutes)

Note. For this analysis, an approximate curve in Excel was used.

Then, Formula 1 is differentiated by the elapsed time (X) and the peak elapsed time (abscissa with

slope 0) is calculated to be 151.78. In other words, it can be inferred that the goldfish scooping event would have reached its peak number of participants approximately 152 minutes after opening.

Note that this is a case study, and the customer base, number of participants and elapsed time until the peak will vary depending on the conditions (the environment in which the stall is opened). However, we believe that this is one of the rare case studies of a goldfish scooping stall at a festival.

5. Summary

This paper has observed what kind of clientele and participants would be attracted to a goldfish scooping stall jointly run by Nagasu Town, the Urayasu City Federation of Community Associations and Meiji University at the Urayasu City Community Association 60th Anniversary Noryo Bon Dance Festival held on Monday, 14 August 2023.

The results showed that approximately 70% of the visitors were in their 30s and 40s with their children, and that they were there to let their children experience goldfish scooping. In this case study, there was a peak in the number of people visiting the goldfish scooping, which was estimated by regression analysis to be 69.7 at 152 minutes elapsed (19:32) (actual observation recorded 87 people at 140 minutes elapsed (19:20)). In any case, it can be concluded that on average 40.9 people gathered for the purpose of goldfish scooping, generating a constant crowd.

Footnote

(Note 1) Nagasu Town HP, Nagasu Town Tourist Information, Goldfish Alone, <https://www.town.nagasu.lg.jp/kankou/kiji0033890/index.html> (viewed 16 August 2023)

(Note 2) Nagasu Town Tourist Information, Goldfish Map, <https://www.town.nagasu.lg.jp/kankou/kiji0033905/index.html> (viewed 16 August 2023)

(Note 3) Nagasu Town HP, Goldfish Museum, <https://www.town.nagasu.lg.jp/kiji0033911/index.html> (viewed 16 August 2023)

(Note 4) Pet Pedia, For goldfish keepers. Types, prices, diseases, how to keep them, breeding goods, etc., <https://petpedia.net/article/65/goldfish#:~:text=%E5%80%A4%E6%AE%B5%E3%81%AF%E3%80%81%E9%87%91%E9%AD%9A%E3%81%99%E3%81%8F%E3%81%84%E7%94%A8%E3%81%AE%E5%B0%8F%E3%81%95%E3%81%AA%E5%80%8B%E4%BD%93%E3%81%AF%2020%E5%86%86%E5%89%8D%E5%BE%8C,%E3%81%8F%80%81%E3%81%9D%E3%81%AE%E3%81%BB%E3%81%8B%E3%81%AE%E5%80%8B%E4%BD%93%E3%81%AF%201%2C000%EF%BD%9E%2C000%E5%86%86%E5%89%8D%E5%BE%8C%20%E3%80%82> (16 August 2023)

(Note 5) Netstore Supporting the Environment, Monotaro, Goldfish Scooping, <https://www.monotaro.com/g/04587947/?t.q=%E9%87%91%E9%AD%9A%E3%81%99%E3%81%8F%80%81%E3%81%9D%E3%81%AE%E3%81%BB%E3%81%8B%E3%81%AE%E5%80%8B%E4%BD%93%E3%81%AF%201%2C000%EF%BD%9E%2C000%E5%86%86%E5%89%8D%E5%BE%8C%20%E3%80%82>

E3%81%84%20%E3%83%9D%E3% 82%A4 (viewed 16 August 2023)

- (Note 6) Nagasu Town HP, 'Regional revitalisation plan: Employment creation project where people shine like swimming jewels and goldfish - Let's polish Nagasu Town's treasures! ～', https://www.town.nagasu.lg.jp/kiji0035124/3_5124_958_up_qtl25nsj.pdf (viewed 16 August 2023)
- (Note 7) Nagasu Town (2005), "PR Nagasu January (No. 795)", "Special feature: Goldfish of Nagasu".
- (Note 8) Nagasu Town HP, Birth of a new species 'Nagasu Hagoromo Ryukin!' , <https://www.town.nagasu.lg.jp/kiji0033911/index.html> (viewed 16 August 2023)
- (Note 9) Nagasu Town (2018), 'PR Nagasu January (No. 1006)', 'Special Feature: The New Challenge of Nagasu Goldfish'.
- (Note 10) Nagasu Town (2023), 'Public Relations Nagasu June Issue (No 1071)'
- (Note 11) Cross Marketing Corporation, Survey on festivals (2023), <https://www.cross-m.co.jp/report/life/20230720festival/> (viewed 16 August 2023)
- (Note 12) ARINA Corporation, [Results of a survey] Summer festival stalls, what comes to mind first: No. 1 is 'shaved ice!' , <https://arinna.co.jp/report-41/> (viewed 16 Aug 2023)