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CC COUPON CIRCULATION AND SHOPKEEPERS' BEHAVIOUR: A CASE STUDY OF THE CITY OF MUSASHINO, TOKYO, JAPAN

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ABSTRACT

This article introduces the history of community currencies in Japan, and examines the successes and remaining problems of the community currency coupons which are currently gaining such popularity. As a rule, in Japan, only shopkeepers can exchange community currency coupons for the national currency. Therefore, in order to expand a currency's circulation and revive the community, each shopkeeper should use the community currency actively without saving or cashing in it immediately. Shopkeepers' behaviour become crucial for circulation. This article will try to investigate the relationship between community currency coupon circulation and shopkeepers' behaviour. We treat community currency coupon used in Tokyo's Musashino district as a case and use a questionnaire-based method to examine the relationship. The research makes it clear that shopkeepers' comprehension level, psychological resistance, and accounting procedure have a substantial effect on community currency coupon reuse versus redemption.

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1. INTRODUCTION

Community currencies (CCs) in the form of redeemable coupons (hereafter called 'CC coupons') are currently gaining popularity in Japan. There are several types of coupons available in the country. The most well known are local coupons (or gift certificates). These coupons carry a premium and are usually issued by Japan's chamber of commerce to stimulate consumer demand and escape the prolonged depression. These coupons typically have expiry dates and are generally used only at local shops. Consumer willingness to buy in the community is supposed to be encouraged by putting a premium on coupons and setting expiry dates. Typical coupons are usually redeemed immediately after being used. However, CC coupons are also used for volunteer activities and are reused multiple times before being redeemed.

This type of community currency is adding vitality to local communities by its use in both commercial and non-commercial transactions, bridging the gap between volunteer activities and the economic activities of local shops. These CC coupons were introduced in an attempt to overcome the problems encountered by earlier CCs used in Japan (Nishibe, 2005; 2006a). 'Eco-money'—only usable for non-commercial services—has been one of the most popular types of CC. Recipients tend to store up these CCs, which they obtain in exchange for their non-commercial volunteer work, because they either cannot find any services they want or cannot use them at local shops. This problem has prevented eco-money from circulating smoothly. CC coupons that can only be exchanged for cash by shops have been adopted in Japan in order to solve this problem. However, another problem is that in the case of CC coupons, local shopkeepers, instead of using CC coupons for other local shops or for non-commercial services, are apt to redeem CC coupons immediately after receipt. This is mainly because most shopkeepers purport to need cash to buy merchandise from outside their community. This hinders the active circulation of CC coupons.

When this happens, the relationship between shopkeepers' behaviour and the circulation of CCs becomes crucial. In order to make redeemable CC coupons circulate successfully in a community sphere, shopkeepers must comprehend the purpose of the CC and commit to circulating them wherever possible, rather than redeeming them immediately.

This article will try to show the relationship between CC coupon circulation and shopkeepers' behaviour. Section 1 reviews the history and development of CCs in Japan. Section 2 gives an outline of the CC coupon introduced in the Central District of Musashino City, Tokyo (hereafter called the Central District). Section 3 analyses the results of a circulation experiment and examines the relationship between shopkeepers' behaviour and the CC coupon circulation. Section 4 coordinates the results of the analysis,

draws conclusions on the significance of the CC coupons, and notes the issues that remain to be studied.

2. HISTORY AND DEVELOPMENT OF CCS IN JAPAN

2.1 Appearance of various CCs before the twenty-first century

In Japan, a variety of CCs have appeared since the 1970s. The first to gain attention were the Volunteer Labour Bank and eco-money (Izumi, 2006; Lietaer, 2004). In 1973, Shoko Mizushima formally established the Volunteer Labour Bank. Participants received in-house credits instead of wages in yen as payment for their volunteer work. One hour of volunteer work was equal to one point, and the points amassed could be exchanged for labour from among participants. This activity is similar to mutual assistance systems, such as the 'Time Dollars' that were later set up primarily in America (Cahn, 2000; Lietaer, 2004). A number of time-deposit-style CCs later appeared, inspired by the idea of the Volunteer Labour Bank¹. Some foreign CCs also became known in Japan, such as the Canadian Local Exchange Trading System (LETS) and the American Time Dollars and Ithaca Hours. These greatly affected the implementation of CCs. An official of the now-defunct Ministry of International Trade and Industry, Toshiharu Kato, proposed the concept of eco-money, modelled on LETS and Time Dollars. Eco-money circulates within districts and re-evaluates various environmental, social welfare, educational, and cultural values (Kato, 2001, p.23).

The use of eco-money has spread throughout Japan, drawing great interest as a tool for revitalizing local communities. From the 1990s through the beginning of the twenty-first century, Japan experienced a boom in the use of CCs. There are three reasons why CCs became more common in Japan. First, the Hanshin Earthquake created momentum for more active civic movements. Second, the country fell into the long-term recession following the bursting of the bubble economy and the Asian currency crisis. Third, NHK, the Japanese public TV broadcaster, released a documentary on author Michael Ende which dealt with the issue of money [Ende's Will].

2.2 Appearance and development of CC coupons

In 2002, the central government proposed a variety of policies related to CCs that were taken up in many parts of the country (Nishibe, 2006b). One of these was a system of special zones for structural reform aimed at relaxing regulations in order to revitalize districts. Many central and local government attempts to establish CCs throughout Japan have also included offers of subsidies and platforms using computer network systems. Under such circumstances, CC coupons were first issued in Rubeshibe Town in Hokkaido. The local coupons that had been in use up to that point were exchanged for cash immediately after use, mak-

1 Later, time-deposit CCs called the Fureai Kippu system by Tsutomu Hotta, director of the Sawayaka Welfare Foundation, spread domestically in Japan.

	CC coupons	Eco-money- type CCs	Local coupons	Stamps
Transaction types	• Commercial • Non-commercial	Non-commercial	Commercial	Commercial
How to get	• Purchase • Volunteer work	Volunteer work	Purchase	Giveaway Promotion
How to use	• Shop • Volunteer work	Volunteer work	Shop	Shop
Circulation	Multiple	Multiple	Once	Once

Table 1. Differences between CC coupons, eco-money-type CCs, local coupons, and stamps.

ing it impossible for them to circulate as a currency and to create additional demand that would promote on-going purchasing activity (Nishibe, 2004, p. 28). Local coupons that incorporated the idea of a CC then appeared. However, the law at the time did not clearly prohibit multiple circulations of local coupons before redemption, and so Rubeshibe Town applied for status as a special economic zone and requested that the government reconfirm multiple circulations. As a result, the regulations were relaxed and the issue of local multiple-circulation coupons was permitted.

Furthermore, in March 2005, the Osaka Healthy Community Creation Special Zone and the Kitakyushu Community Currency Special Zone were established as special zones for CC purposes, and regulations regarding the issue and circulation of CCs were relaxed. As a result, three types of CC coupons came into existence: Genki, in Neyagawa City, Osaka; Ippo, in Suita City, Osaka; and Orion in the Yahata West district of Kitakyushu. In 2007, special measures regarding regulations were implemented nationwide, creating awareness of CC coupons across Japan. In response, the village of Sarabetsu in Hokkaido set up an incorporated non-profit organization and issued Sarari, which was usable not only for volunteer activities and local shopping but also for payment of public utilities, facilities, and local taxes.

2.3 Special features of CC coupons

CC coupons are special in that they are multiple-circulation local coupons valid for both commercial and non-commercial transactions. They can be used to reward volunteers for their work, to buy goods in shops, and to pay for administrative services. They were introduced in order to overcome the limits of the previously used CCs, local coupons, and stamps. These CCs had problems related to their limited regions of use and stagnation in circulation. Unlike these earlier local coupons and stamps, CC coupons need not be cashed in immediately after use, but can instead be re-circulated. This type of CC also differs from the eco-money type of CC in that its sphere of use is not limited to non-commercial transactions but also includes commercial transactions (Nishibe, 2006a, p.338). This mechanism

is known as the Double Triangle System (DTS) (Nishibe, 2004a, 2008; Kichiji and Nishibe, 2008).

With DTS, 'CC circulation in non-commercial transactions is pulled along by CC circulation in commercial transactions, thus the mechanism allows for a smoother circulation of the CC, and is an attempt to overcome the difficulties of CC stagnation and continuity in transactions' (Nishibe, 2008, p. 291). The DTS forms a link between commercial and non-commercial transactions, broadens the area of circulation of the CC, and invigorates volunteer activities, mutual assistance, and economic activities. Yen and local coupons are not ordinarily used in non-commercial transactions such as volunteer activities and mutual assistance, whereas CC coupons are used in these transactions, making their range of possible use much broader. As a result, CC coupons form a link between citizens who undertake non-commercial transactions and businesses who undertake commercial ones, thereby fulfilling a role in building social capital. Table 1 shows the differences among CC coupons, eco-money-type CCs, local coupons, and stamps.

3. OUTLINE OF THE CC IN THE CENTRAL DISTRICT OF MUSASHINO CITY

3.1 Background to the introduction of CC

The preceding section explored the history and development of CCs in Japan and briefly documented the process that gave rise to CC coupons. Given that CC coupons have attracted much attention in Japan in recent years, this section will focus on the case of Musashino City in Tokyo. Musashino City has an abundance of commercial establishments and educational institutes, with the tertiary sector providing the city's main economic support. The financial capability index, which shows the strength of a city's financial base, is very high for Musashino, which is an affluent city. Central District, the focus of this article, has several merchants' associations and fully engages in festivals and other local activities. However, with the drawn-out recession and the opening of large-scale stores, the shopping streets in Central District are gradually going into decline.

Central District has three main problems. The first is the impasse on trade stamps. The stamps encourage consumers to buy more, increase purchase rates in participating shops, and help to keep consumption within the district. Musashino Central District Shopping Streets Federation (hereafter called 'Federation') implemented trade stamps as a part of its consumer services. However, trade stamps are on the decline owing to steep falls in sales turnover and in the number of participating shops. Consumer interest in stamps has also waned, and stamps no longer provide the means for bonding between consumers and the shopping district.

The second issue is the weakness of links between different groups. Various groups are undertaking local activities in Central District, but there appears to be no strong links among them. Such links are necessary to energize the community, but in this case have been inadequately forged.

The third problem is the aging of society and the decline of mutual assistance. An aging society experiences a host of problems. Senior citizens find it increasingly difficult to visit shops as they become less mobile. With few opportunities to get out and about, their feeling of isolation increases and they become estranged from their local communities. Relations with local residents also become weaker, and mutual assistance dwindles.

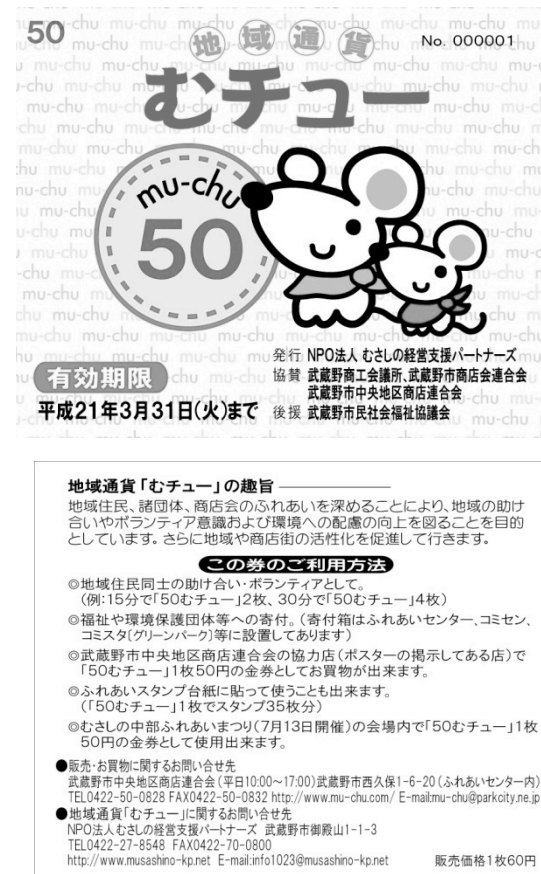
Central District is experiencing the types of problems outlined above. These can only be resolved with the co-operation of local groups and residents. A CC has the potential to bring about co-operative relations among the various local groups and residents and strengthen the social capital. Groups and residents can use a CC to add vigour to shopping streets, accommodate an aging society, and promote inter-group links and mutual assistance. Federation decided to introduce a CC as a way to tap this potential.

3.2 Design and circulation of the Mu-chu scheme

This section will outline the design and circulation scheme of the CC, the Mu-chu (hereafter, Mc), introduced in the Central District. The design is shown in Figure 1. A Mc note is equivalent to 50 yen. The Mc was introduced in order to promote inter-group links and mutual assistance, and thereby invigorate the local community and economy.

Experimental Mc circulation was implemented as shown in Table 2. A two-phase implementation was planned over a six- to twelve-month period beginning in 2008. In all, 11 shopping streets participated, with some 140 participating shops. The total issue in the first phase was equal to approximately 3.7 million yen, and in the second phase around 2.7 million yen. The amounts of money redeemed were approximately 3.5 million yen in the first phase and 2.5 million yen in the second phase, meaning that more than 93% was eventually redeemed. The first issue was carried out by NPOs, and the second by local merchants' associations.

Figure 1. Front (left) and back (right) of a 50 Mc note.



	First stage	Second stage
1. Experimentation period	07/2008 - 03/2009	05/2009 - 03/2010
2. Total number of participating shops	145	141
3. Total value of CC in circulation	¥3,770,200	¥2,735,400
4. Total value of CC redeemed	¥3,513,100	¥2,556,600
5. Rate of CC redeemed	93.2%	93.5%
6. Issuers of CC	NPOs	Local merchants associations

Table 2. Implementation of experimental Mc circulation.

Mc were issued by two methods. Table 3 shows the details of the total amounts issued. In the first method, Mc was bought by various groups and merchants associations and distributed to local residents as giveaway promotions from shops and rewards for community services. Service activi-

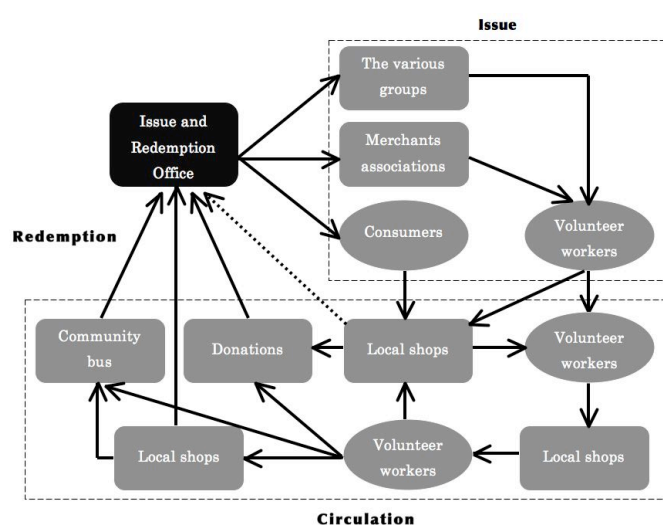
Method of Issue	First stage	%	Second stage	%
Rewards for community services and giveaway promotions	¥957,500	25.4	¥1,427,900	52.2
Donation	¥555,000	14.7	¥0	0.0
Purchase by consumers	¥2,257,700	59.9	¥1,307,500	47.8
Total	¥3,770,200	100.0	¥2,735,400	100.0

Table 3. Mc issued.

ties included helping with festivals and other events, communal cleaning, gardening, collecting caps from plastic bottles, and forgoing the use of plastic shopping bags. In Japan, the 'no plastic bags' movement is booming from an environmental conservation standpoint. When a customer declines to take a plastic shopping bag at checkout, he or she receives a point, and when a certain number have been amassed, they can be converted into Mc. In this circulation experiment, the various groups and merchants' associations bought Mc at a rate of 60 yen per coupon (worth 50 yen) and distributed them to the volunteer workers and other recipients. The face value of the CC is 50 yen; for every coupon bought by the groups and merchants associations, 10 yen is contributed to running costs. The Federation also gave away Mc to groups and residents as a form of advertising. In the second method, local residents bought Mc directly and used them in the shopping streets. In this case, Mc came with a 20% premium for a limited time. A local resident buying 1,000 yen (20 coupons) of Mc received a premium of 200 yen (4 coupons). There are no differences in function between these and previous issues; the only distinguishing feature is that the character *toku*, meaning 'special', is printed in a red circle on the top-right side of the coupon.

Local residents who received or bought Mc used them as payment for mutual assistance, as donations, on shopping streets, on the community bus, and during events such as festivals. Mc could also be affixed to stamp cards. Shopkeepers who accepted Mc sometimes used them in other shops. In principle, only participating shops were allowed to redeem Mc for yen. Residents and shopkeepers could also donate Mc. The donations received were converted into yen and given as aid money for victims of disasters, funds for guide dogs for the blind, and support for social welfare councils. Mc had an expiry date. The distribution flow of Mc is shown in Figure 2. The arrows indicate the direction of the flow. Mc re-circulated repeatedly among groups and residents before eventually being redeemed for yen by shopkeepers or the company running the community bus. This figure shows the structure of possible distribution flow. Actually, many Mc coupons were redeemed as soon as they were used in shops as the dotted arrow shows. Mc issued as CC coupons has borne fruit. However, the problem of redemption by shopkeepers have also risen. The next section investigates the problem of shops redeeming Mc from the standpoint of the shopkeepers' comprehension and behaviour.

Figure 2. The possible distribution flow of Mc.



4. RESEARCH METHOD AND RESULTS

4.1 Issues

Some Mc were given as gifts and rewards for community services. These were mainly used in local shops and for the community bus. Kurita (2010) focuses on the awareness and behaviour of general local residents to ascertain the effects of introducing Mc. According to Kurita, Mc gradually brought about positive effects after being issued in the form of CC coupons, as it transformed both the awareness of inter-group links and consumer behaviour. However, there was one major problem with Mc: shopkeepers tended to redeem it immediately. Most of the coupons given to and bought by local residents were used in the shopping streets and then redeemed (Table 4). Mc received by shops could have been used in other shops, given as rewards for mutual assistance, used for the community bus, or given as donations, but much of the Mc issued ended up being redeemed even before the expiry date (Table 5).

Implementation period	Redemption rate of Mc by shops (%)
First stage	98.4
Second stage	97.7

Table 4. The redemption rate of Mc by shops.

Implementation period	Redemption rate of Mc before the expiry date (%)
First stage	46.8
Second stage	66.6

Table 5. The redemption rate of Mc before the expiry date.

This shows that the shopkeepers' behaviour can have an effect on the circulation of Mc, particularly in terms of the shopkeepers' comprehension of CC, that is, whether shopkeepers have a full understanding of the difference between local coupons and CC, which can be reused many times. For CC coupons to circulate multiple times, shopkeepers must be fully aware of their significance in the ways they can best be used. If a shopkeeper uses Mc as gifts in other shops, that value remains in the community, but when a shopkeeper redeems Mc for yen, the value is lost from the local community. It is therefore important to promote circulation so that shopkeepers re-use the coupons. This problem also arose in the 1930s with the Prosperity Certificates issued by the Canadian province of Alberta. See Coe (1938). However, earlier research has not adequately addressed this issue, which has led us to believe that it is necessary to analyse the effects of shopkeepers'

comprehension and behaviour on the circulation of Mc². The next section investigates the relationship between shopkeepers' behaviour and the circulation of CC coupons, focusing on the shopkeepers' level of comprehension. Some problems are also brought to light.

4.2 Survey method

To carry out the research survey mentioned above, shopkeepers in the Central District shopping streets were selected to participate in face-to-face questionnaires and interviews. Shops where Mc had been accepted were targeted, and shopkeepers were asked about their comprehension of Mc and their ways of using it. Mc had been accepted in 106 shops in either the first or second circulation phase; a total of 84 shopkeepers agreed to participate in the survey. The survey contained questions regarding comprehension of Mc, whether it was redeemed for yen, and how it was used. To investigate the level of comprehension about Mc, questions were asked about six of Mc's features. There were also questions about changes after the introduction of Mc and opinions and demands relating to Mc were collected. The questionnaire that we conducted in the survey is found in appendix. The interviews were conducted in an open-ended format. In the interviews, we asked shopkeepers in detail for their reasons for redemption. The survey was carried out in two stages in October and November 2010.

4.3 Results

In order to survey the degree of comprehension of the CC, subjects were asked if they knew the features of Mc. For each of the six features that a subject knew about, one point was given, for a maximum of six points. The six features are as follows: (1) Mc can be used as a reward for volunteer work; (2) Mc can be donated to welfare and environment protection groups; (3) Mc can be used in participating

Table 6. Averages and standard deviations for levels of comprehension of Mc.

	Mean	SD
Overall comprehension level (0,6)	4.83	.82
Component features		
1. Usable as a reward for volunteer work (0,1)	.83	.38
2. Usable as a donation (0,1)	.60	.49
3. Usable in participating shops (0,1)	.99	.11
4. Usable at festivals and other events (0,1)	.87	.34
5. Usable as a stamp card (0,1)	.69	.47
6. Usable multiple times (0,1)	.86	.35

2 Several previous studies examined the economic effects of CC coupons. Coe (1938) notes how their use in large shops and redemption could become obstacles to their circulation. Nishibe (2005, 2006a), Kichiji and Nishibe (2008), and Yamazaki (2008) verify the economic effects of CC coupons by considering their redemption, turnover, and velocity of circulation. However, these studies did not focus on shopkeepers' values, comprehension of CC, or behaviour.

shops; (4) Mc can be used at festivals and other events; (5) Mc can be affixed to stamp cards; and (6) Mc can be used multiple times within the district without having to be redeemed. Table 6 shows the averages and standard deviations for the levels of Mc comprehension. Table 6 shows the overall comprehension levels and the levels for each of the component features.

The overall comprehension level average was 4.83. Given that the maximum score was six, we can see that to some extent, the main features of Mc were understood. What about the individual features? As Table 6 shows, shop owners understood that Mc could be recirculated, given as a volunteer activity reward, and spent at participating shops and festivals. The other two features, donation and stamp card use, were not well known. Although there was some degree of understanding, there was also variation across features.

Behaviours of shopkeepers	%
Reused all or part of the Mc received	41.7
Redeemed all the Mc received	58.3
Total	100.0

Table 7. Rate of reuse of Mc by shopkeepers.

Use	Number of times
1. Local shops	47
2. Community bus	2
3. Donations	2
4. Gifts	2
Total	53

Table 8. Shopkeepers' use of Mc.

Table 7 shows whether shopkeepers that accepted Mc reused some of them instead of redeeming them. It was found that 41.7% of shops reused all or some of the Mc received, and 58.3% redeemed all the Mc received. From this result, we can presume that 41.7% of shopkeepers were able to distinguish CC from local coupons and use them as such. Table 8 shows the ways in which shopkeepers reused the Mc received. Calculations were made as follows: if shop A has three Mc notes and reuses the first Mc in shop B, the second in shop C, and the third for the community bus, these are counted as having been used twice in shops and

once on the community bus. In this case, three Mc notes were used for three different routes. The sum of each shopkeepers' use routes are listed in the Table 8. As Table 8 shows, almost all of the Mc were reused in shops. Thus, the majority of Mc is circulated multiple times to bring about consecutive transactions, which leads to a 'multiplier effect' which creates effective demand. On the other hand, 58.3% of shops redeemed all the Mc they received, suggesting that they failed to understand the significance of Mc. As previously discussed, shopkeepers' comprehension shows some variation across features. Therefore, shopkeepers' comprehension level of Mc can have an effect on their behaviour. It could be that differences in the level of CC comprehension affected levels of its reuse. There could be differences in the levels of Mc comprehension between the group that reused some of the Mc and the group that redeemed all the Mc, which could have an effect on circulation. Next, we consider whether there is, in fact, such a difference between the reuse group and the redemption group, and investigate the relationship between CC comprehension and redemption.

Table 9 shows the differences in comprehension levels for each feature between the reuse and redemption groups³. There was no great difference between the two groups in their levels of comprehension of Mc usability for voluntary activities, in participating shops, and at festivals and other events. However, there were large differences between the groups in their levels of comprehension of Mc usability for donations, as stamp cards, and reusability. With regard to these three items, the reuse group had significantly higher comprehension levels than the redemption group. Remarkably, the difference (24.5%) between the two groups in comprehension of Mc's reusability within the district is statistically significant ($p < .05$). This is particularly important. If a shopkeeper comprehends that Mc can be used multiple times, it would not redeem all the Mc it received, but reuse at least some, whereas complete ignorance of this feature would leave redemption as the only option. As Table 6 shows, although Mc reusability is widely known, analysis of the data when categorized into these two groups reveals that the group that redeemed all the Mc received had a relatively low comprehension of this fact (Table 9).

We made a cross tabulation to better understand the relationship between the level of comprehension and behaviour (Table 10). Among those who redeemed all their Mc, some are ignorant of the fact that the currency can be circulated multiple times (I in Table 10). Given that no shopkeepers reused Mc without knowing about multiple circulation (II in Table 10), it is crucial for shopkeepers to receive information about multiple circulation so that they reuse Mc. However, about 76% of all shopkeepers redeemed all their Mc, even though many knew about multiple circulation (III in Table 10). Why, then, did they redeem all their Mc?

3 We obtained information on redemption from 84 shops, but one subject refused to give responses regarding CC comprehension for personal reasons. As a result, the relationship between comprehension and behaviours was analysed on the basis of data from 83 shops.

In order to answer this question, we analysed the interview results. We found that shopkeepers have two main motives for redemption. First, they have trouble with the accounting procedures. Some shopkeepers added Mc up in sales at shops. These individuals had to redeem Mc for yen in order to count Mc used in the shops as sales. If these shopkeepers reuse Mc without redeeming it, their sales will decline. Shopkeepers usually keep their sales at shops until they post their profits. Keeping Mc until the time profit is recorded and redeeming it then will have no impact on their sales. But, if these shopkeepers reuse Mc without redemption, their sales will drop for every Mc used. In order to avoid this type of problem, they can redeem Mc using their own money and post it as part of sales. But, many shopkeepers hesitated to behave in such a way because they fear confusing their own money with their shop's money.

Second, many were psychologically resistant. Some were unwilling to use Mc at other shops. They thought that the other shops had to redeem the Mc for yen before the expiry date and that it would require them to make the additional effort of going all the way to the redemption office. Accordingly, considerate shopkeepers hesitated to reuse Mc because they thought it would cause trouble for other shopkeepers. They resisted shifting this troublesome task to other shops with whose owners they were familiar. Further, some shopkeepers said that Mc should be used only by local residents, not by shops. They misunderstood the nature of Mc, believing that it was only for local residents, and never imagined that reusing Mc would lead to the revitalization of local communities. As just described, this sense of resistance among shopkeepers gave reuse of Mc an unduly large amount of influence. Psychological elements are not the sole source of negative impact on multiple circulation of Mc. However, some shopkeepers did show a strong

resistance to reusing Mc, despite knowing Mc that it could be reused.

To sum up the results thus far, the improvement of comprehension of Mc among shopkeepers is essential to promote its circulation, but accounting procedures and psychological resistance have had negative impacts on its multiple circulation.

Table10. Relationships between shopkeepers' behaviour and comprehension.

	Unknown	Known
Redeem	I 24.5%	III 75.5%
Reuse	II 0.0%	IV 100.0%

5. CONCLUSIONS AND IMPLICATIONS

CCs in Japan have undergone a peculiar process of evolution. At first, the voluntary eco-money gained popularity among community activists. Eco-money was introduced to foster mutual support among people within a community. However, since their sphere of use was limited to non-commercial transactions such as volunteer services and mutual aid, people who did not need mutual support had difficulty finding uses other than non-commercial transactions. To overcome this problem, CCs that are also usable in local shops and for payment of public utilities have emerged and become popular in Japan. Since local shops must stock with some amount of merchandise from outside their community, it is reasonable for local shops to be able

Table 9. Differences in comprehension levels for each feature between the reuse group and the redemption group

	Reuse group	Redemption group	Difference	p-value
Component features				
1. Usable as a reward for volunteer work	88.2	79.6	8.6	.462
2. Usable as a donation	79.4	46.9	32.5	.006**
3. Usable in participating shops	100	97.1	2.9	.853
4. Usable at festivals and other events	88.2	85.7	2.5	.997
5. Usable as a stamp card	79.4	61.2	18.2	.079*
6. Usable multiple times	100	75.5	24.5	.005**
N	34	49		

Note: **p-value < .05; *p-value < .1, two-tailed test.

to redeem CCs. A new type of CC in the form of coupons was thus created.

In this article, we have explored the history of CC coupons in Japan, focusing on the example of Musashino City: its experimental circulation and implementation of Mc. We have also examined the issues surrounding CC coupons. The most distinctive feature of CC coupons is that they are redeemable for yen and usable for both commercial and non-commercial transactions. However, if CC is redeemable in this way, the majority should be used in local shops and redeemed by the expiry date. However, many shopkeepers redeem them immediately.

Our analysis shows that level of comprehension of Mc, psychological resistance, and accounting procedures all have a substantial effect on Mc reuse versus redemption, and as a result, on average Mc turnover. For this reason, we propose two strategies to promote Mc circulation. First, practitioners should educate shopkeepers about CC, particularly about the difference between CC and local coupons. It can be hard for shopkeepers to recognise the essential difference between CC coupons and local or merchandise coupons. Since CC coupons are redeemable just as other coupons are, shopkeepers that have no interest in CC are often apt to consider them the same. As a result, shopkeepers without good knowledge of CC tend to redeem them immediately.

Second, softening the psychological resistance of shopkeepers is crucial to improving circulation of CCs. For this purpose, practitioners must develop new use routes for these shops. It is essential to create an environment in which shopkeepers can use Mc in places other than shops. For example, allowing CC to be applied to the usage fees of community facilities managed by local government would help in this regard. Enabling donations and payments to volunteer workers is an important factor in alleviating resistance to Mc. It is very important to create a CC coupon system well adapted to shopkeeper attitudes. An improvement in shopkeeper knowledge and the development of a CC coupon system tailored to shopkeeper attitudes is an important factor in achieving greater CC circulation⁴.

However, this study did not adequately consider the impact of accounting procedures or shopkeeper attitudes on the multiple circulation of CC coupons. Thus, we recommend that future research on CC coupon circulation focus on the relationship between shopkeepers' business practices, psychological factors, and coupon reuse. At the same time, we must explore behaviour affecting CC circulation from such perspectives as that of how shopkeepers' redemption practices may differ according to type of business or geographical area.

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4 It is difficult for shopkeepers to change their accounting procedures because accounting problems relate closely to their own business policies. For this reason, changing knowledge and attitudes is one of the most important strategies for improving CC circulation.

APPENDIX

Questionnaire for the shopkeepers

- Q1. Do you know that it is possible for you to use Mc in return for helping or volunteer activities?
- Q2. Do you know that it is possible for you to donate Mc to organizations that engage in social welfare or environmental protection activities?
- Q3. Do you know that it is possible for you to use Mc at participating shops?
- Q4. Do you know that it is possible for you to use Mc for at festivals and other events?
- Q5. Do you know that it is possible for you to use Mc as a stamp card?
- Q6. Do you know that it is possible for you to use Mc more than once?
- Q7. Have you ever used Mc without redeeming it?
- Q8. Please tell us where you used Mc.
- Q9. Please tell us the amount you have used Mc without redeeming it.
- Q10. Please tell us how many times you have used Mc without redeeming it?
- Q11. Please tell us why you redeemed Mc without using it.
- Q12. Did you feel a change after Mc was introduced into the community?
- Q13. Please give us your comments, ideas, hopes, and requests for Mc.