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LETS PASSBOOK COMMUNITIES: AN INVESTIGATION OF AN ADAPTATION OF THE LETS COMMUNITY CURRENCY MECHANISM

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ABSTRACT

While the 1990s international wave of LETS community currencies has largely subsided, within the grassroots nonprofit sector in Japan a LETS adaptation, previously observed in Halle Germany, has emerged as one model for the durable management of CCs in Japan. Using a multiple case study approach rooted in Grounded Theory, this paper investigates what separates this LETS Passbook adaptation from the classic LETS model, as well as what characteristics have encouraged its development in Japan over the last 20 years. It finds that, in stark contrast to the original LETS, the LETS Passbook system observed in Japan has far less stringent funding and administration requirements. Furthermore, it finds that a link to rural revitalization, a compatibility with Japanese cultural norms as well as the innate flexibility of the Passbook system have encouraged the long-term development of these 4 LETS Passbook communities in Japan.

KEYWORDS

LETS, Community Currency, Japan, Durable Management.

1. INTRODUCTION

This paper expounds on the characteristics of a particular adaptation of the LETS (Local Exchange Trading System) community currency (CC) system that was previously documented in Halle Germany (Kawamura, 1999; Greco, 2001; Schroeder, 2006) and has emerged as one model for the long-term durable management of CCs in Japan (September and Kobayashi, 2022). This LETS adaptation utilizes small books known as Passbooks (Miyazaki and Kurita, 2015) for users to record their own transactions in a decentralized manner, and has also been associated with community development in Japan (Nakazato and Hiramoto, 2012; Meng and Ueda, 2020). This paper begins with a description of the rise and fall of the broader LETS movement in order to contextualize the development of the LETS 'Passbook' model. Next, the paper summarizes the development of the LETS Passbook system in Japan. Finally, in order to investigate 4 examples of LETS Passbook communities in Japan, research questions are posed, followed by a description of the research sites, methodology, and findings.

2. OVERVIEW OF LETS SYSTEMS

The primary goal of this paper is to establish what separates the LETS Passbook model from the classic LETS model, as well as what characteristics have encouraged its development over the last 20 years in Japan. It is therefore fitting that this paper begins with a broad overview of the development and decline of LETS global movement.

2.1 The Classic LETS Model

The LETS CC model has had one of the most profound influences on the expansion of CCs within the last 40 years. It was invented on Vancouver Island, Canada, in the early 1980s by community activist Michael Linton, "as a local response to recession and unemployment." (Seyfang, 2002, p.3) and then spread to numerous countries during the 1980s and 1990s (Seyfang and Longhurst, 2012; Smith and Lewis, 2016). The original goal of the LETS system was to stimulate local economic development by facilitating the exchange of goods and services among a community of people without the need of the national currency (Williams, 1997).

In a typical LETS system members list the skills, products and services that they need or can provide in a central directory and then contact each other to facilitate transactions. When the transaction is complete, they notify the organization's treasurer or central administrators so that their accounts can be appropriately credited and debited (Seyfang, 2002, p.2). In the early LETS systems, which were paper based, the organization kept track of the transactions through a system of cheques. Williams et al. (2001, p.4) write that, "Every time a transaction is made, these cheques are sent to the treasurer who works in a similar manner to a bank sending out regular statements of account to the members." However, over time these paper-based systems were largely replaced with online accounting systems (Seyfang and Longhurst, 2012, p.12).

The following example illustrates a typical LETS transaction via double-entry bookkeeping: If person A sells a product or service to Person B in the network, they notify the organization's treasurer (through a phone call or online notification) who then credits Person A's account and debits Person B's account by the same amount. Consequently, in theory, the sum of all the members' balances equals zero (Nishibe, 2004, p.103). This intuitive system saves money and effort as the currency does not actually need to be printed but only exists as debits or credits in members' accounts, who receive regular statements updating their account balances. The LETS unit of exchange is typically pegged to the national currency but not exchangeable for it. Consequently, the original systems operated parallel to the national currency in any given country.

2.2 LETS Evolution and Variation

As the LETS movement spread around the world it inevitably gave birth to a variety of implementation forms. Seyfang and Longhurst (2012, p.12) identified 1412 CC organizations using a LETS mutual exchange mechanism throughout 14 countries. On the other hand, Smith and Lewis (2016) were less modest in the estimation, stating that "LETS have been implemented in 39 countries across the globe, each with a unique socio-economic landscape." The gap in estimation is evidence of the variety of implementations, which inevitably make accurate assessment or description difficult. For example, while the German Tauschringe (exchange rings) created in the 1990s, used the classic LETS model described above as a blueprint, most of them made use of time as a measure of value (Schroeder,

2006) creating an overlap with time banking methodology. Furthermore, the LETS Passbook model examined in this paper was originally documented in Halle Germany (Schroeder, 2006), thus showing at least 2 LETS variations that existed in one country. Another form of variation, is the question of the inclusion or exclusion of businesses in the network, although the general finding is that it is very difficult for LETS organizations to attract businesses to their networks and many LETS networks have stopped trying (Croall, 1997, p.65; North, 1998, p.118).

Schroeder (2002), encapsulated the varying evolution of LETS methodologies by describing later iterations as "LETS-type" organizations. However, despite the variety of implementation methods, the central aspect of the LETS methodology is the double-entry bookkeeping method described in 2.1 which remains the same across interpretations regardless of whether the LETS credits were pegged to the national currency or measured in time. As the primary goal of this paper is not to document LETS interpretations in all their variety, the discussion below will be limited to the broader rise and fall of the LETS model. It should also be borne in mind that all the LETS examples discussed below, despite their variety, have the double entry bookkeeping method in common.

3. KEY ASPECTS OF THE LETS MOVEMENT

3.1 Social not Economic Benefits

As a result of being created during a recession, the original goal of the LETS systems was to encourage local economic development through the provision of liquidity to stimulate the exchange of goods and services (Williams, 1997; Seyfang and Longhurst, 2012). However, the general consensus is that LETS systems have negligible economic effects at the local level (Williams, 1997; Aldridge and Patterson, 2002; Jelínek et al., 2012) for a variety of reasons, including low levels of trading, low value of trades and small numbers of members. Any marginal economic benefit of LETS systems is usually accomplished via the creation of social support networks. For example, Williams et al. (2001, p.130) found that "although LETS are moderately successful at maintaining and improving employability, they are most effective at providing a seedbed for self-employed business ventures and at providing reciprocal exchange networks so that people can engage in community self-help." Consequently, the real benefit of a LETS network lies in its ability to encourage community development and social connection (Seyfang, 2001; Williams et al., 2001). In line with these findings, Slay (2011, p.14) also finds that, "evaluations of LETS in the UK have shown limited economic outcomes but very large social and community benefits." Subsequently, the consensus is that LETS networks are effective at fostering community development and social capital. This includes LETS systems in Japan where it was found that the LETS system creates bonds resembling bridging social capital, function as forms of social support and contribute to endogenous regional activation (Nakazato and Hiramoto, 2012; Izumi and Nakazato, 2013; Meng and Ueda, 2020).

3.2 Small Memberships

Another common feature of the original LETS systems are the generally small size of their memberships. In mid 1990s Australia had 164 LETS systems with an average membership of 144.8 people (Williams, 1997, p.4). Around the same period, Williams et al. (2001, p.121) found there were around 303 LETS systems in the UK with an average membership of 72 people per system. In a later examination at 31 LETS systems in the London area, Aldridge and Patterson (2002, p.371) found they had an average membership of 97 people, which was "typically larger" than other UK LETS systems. In an analysis of LETS systems in post-communist Central European Countries (Jelínek et al., 2012), the membership of the examined systems ranged between 20 – 50 people with one outlier organization that had 226 registered members. Finally, according to Schroeder (2006, p.32) Germany's Tauschringe had an average membership of 81 individuals, with membership numbers ranging from 20 to outliers of more than 300. All in all, LETS systems around the world tend to have small memberships, which unsurprisingly produced negligible economic effects.

3.3 Decline

The LETS model of CC started spreading in the 1980s with expansion peaking in the 1990s. By the early 2000s adaptations of the LETS model could be found in numerous countries including Australia, New Zealand, Holland, Norway, The United Kingdom, Germany, Spain, North America, South Africa and Japan (Williams, 1997; Seyfang and Longhurst, 2012). However, due to model's inability to fulfill its initial promise as a tool for economic development

as well as other issues (discussed below), decline set in. Seyfang (2002, p.3) writes that, “The LETS movement as a whole seems to have hit a stumbling block whereupon they do not continue to grow in number or in size, but some schemes contract and some others stagnate, with disappointing results for proponents within local authorities.”

3.4 Funding and Administration Issues

One key reason for the decline of LETS systems around the world are the administration and funding burdens required to keep LETS systems active. Reports on LETS activities in the UK, North America and Australia all state the necessity to maintain offices and staff to account for expenditure and income information for all members' accounts, issue regular statements to members and receive communications from members to record transactions (Williams, 1997, Williams et al., 2001). This administration is necessary to enable peer monitoring of credit and debit limits, which ensures that members are not taking advantage of the system with excessive negative balances (Williams, 1997; Shraven, 2000). Indeed, Shraven (2001, p.3) reports on the collapse of a LETS system in Australia due to opportunistic behavior by members and in a Hungarian LETS system where many members had high negative balances, some members felt that this was morally wrong and wanted to step away from the system (Jelínek et al., 2012, p.8). Accordingly, well-organized administration is essential for a standard LETS model and this in turn necessitates high commitment from organizers as well as access to resources to maintain the integrity of networks.

Issues with funding and administration were already apparent during the 1990s spread of LETS systems. Williams (1997, pp.6-7) writes that “New organizational problems which arise once the LETS is up and running include working out what to pay the administrators of the system and the need for better accounts software. Aldridge and Patterson (2002, p.377) in a critical examination of UK LETS systems write that the administration tasks of a LETS system are time-consuming and require a high level of commitment from the organizing committee. Eventually they conclude that “the effective organization of LETS also requires the input of considerable resources in order to maintain the effectiveness of their administrative systems and provide members with the trading opportunities and other information they require. (Aldridge and Patterson, 2002, p.379). In Australia many LETS systems became incorporated to overcome funding problems (Williams, 1997, p.8), while in the Czech Republic the exhaustion and fatigue suffered by organizers was one of the main reasons why LETS systems ceased their operations in that country (Jelínek et al., 2012, p.4). It needs to be stated that while funding and administration issues were a strong trend among LETS organizations, there were exceptions to this. According to Schroeder (2002, p.4) One of the largest Tauschring LETS systems in Germany (TTH) kept a low-profile regarding administration and distributed the burden among many shoulders resulting in almost no issues. Exceptions aside, administration problems would prove to be a stumbling block for many LETS systems.

While there are likely still hundreds if not thousands of LETS systems that are still operating in either the original format or a variant of it around the world, the general consensus on LETS is that it has not lived up to its promise and in many ways it is outdated. Seyfang and Longhurst (2012, pp.19-20) when discussing the lifecycles of CC models write that the rise and fall of the LETS model is “particularly prominent” and they leave little doubt that this model of CCs has seen its best days.

4. JAPANESE COMMUNITY CURRENCIES

4.1 A Brief Summary of Japanese Community Currencies

Unlike other Asian nations, Japan was strongly influenced by the worldwide development of CCs, which resulted in a CC boom at the turn of the millennium when hundreds of CC organizations were launched between 2000 and 2005 (Kobayashi, Miyazaki and Yoshida, 2020). In fact, prior to this early 2000s boom, CCs had functioned as a tiny part of the grassroots nonprofit sector in Japan as early as the first time bank experiment in the 1970s. (Hayashi, 2012; Lietaer 2001). However, since around 2005 there has been a sharp drop in the number of new CC organizations launched each year. Izumi and Nakazato in a longitudinal study of Japanese CCs between 1999 – 2008 and again in 2016 (2017, p.42) estimate that there were still around 200 existing CCs in Japan of which 60.8% operate as NPOs or civic groups.

4.2 The Introduction of LETS to Japan

Despite the existence of CC systems in Japan since the 1970s, it is generally accepted that the Japanese boom of CCs in the early 2000s was triggered by the success of a TV documentary titled 'Ende's Last Testament' (Kawamura, 1999), which was originally broadcast on NHK on May 4th 1999 and then rebroadcast several times. (Hirota, 2011, Nakamura, 2003). This documentary featured several historical CC initiatives such as the Worgl experiment, the LETS based Tauschring in Halle, Germany, Ithaca Hours in New York and others. As previously mentioned, the Tauschring in Halle, Germany featured the use of LETS Passbooks to record transactions (Greco, 2001). Therefore, it is highly likely that this documentary was the primary influence for introducing this Passbook form of LETS to Japan. Additionally, LETS was also introduced to Japan either through Japanese researchers and social entrepreneurs having direct interaction with LETS founder Michael Linton, through the Transition Town movement which was introduced in areas like Fujino and Kamogawa or simply through researchers and practitioners obtaining information about LETS in various countries around the world (Miyazaki et al., 2016, p.9). However, being influenced by the LETS system did not always result in the creation of the double-entry bookkeeping mechanism described in 2.1. For example, the cofounders of Earthday Money who had personally met Michael Linton, ended up creating a paper currency which later became digital and had almost no resemblance to the LETS model (September, 2019). This paper focuses on 4 Japanese CCs that have adopted the LETS double-entry bookkeeping method in the form of the Passbook model observed in Halle Germany.

4.3 Japanese LETS Passbook Communities

In discussing the aftermath of the CC boom in Japan, Kurita and Miyazaki (2018, p.121) have the following to say, "Since the boom, there has been a movement to seek out new systems after carefully reviewing previous practices, and it seems that the systems have diversified in the process." One branch of this diversification is the Passbook interpretation of the LETS CC system. Kobayashi, Yoshida and Miyazaki (2020) did an investigation of 537 CCs issued between 1999 – 2016 and found that around 20% of those CCs use the Passbook interpretation of the LETS model, which is characterized by the use of small books as a means for members to record their own transactions. Consequently, these forms of CC have been called "Passbook Communities" (September and Kobayashi, 2022). An important aspect of the Passbook Communities examined in this paper is that their success and development occurred largely outside and after of the CC boom of the early 2000s. Operators of 2 these Passbook Communities (Yorozu Ya and Awa Money) have stated that their choice of the LETS Passbook mechanism was due to its superiority over earlier Japanese CC systems. In many ways the 4 organizations investigated here are not part of the current trend of CCs in Japan, which lean towards digitization and economic and environmental development (Izumi and Nakazato, 2017). However, they do offer the potential of a long-term model for bottom-up community development (September and Kobayashi, 2022).

5. RESEARCH GOAL

The overall aim of this paper is to deepen understanding of Passbook LETS model by firstly uncovering what (if anything) sets it apart from the original LETS model, and secondly, determining the characteristics of the Passbook model that have encouraged its long-term durability in Japan. This is accomplished through an examination of 4 long-lived Passbook Communities. The research goal has significance from both a social development and academic perspective. From the Japanese perspective this research goal has social development significance as Japan is the forerunner of the social problems experienced by developed economies such as an aging society and social isolation (Japan NPO Center, 2022). The investigation could shed light on the potential of Passbook communities to contribute towards tackling some of these social concerns. From an academic perspective, an investigation into these Japanese Passbook communities will firstly serve to bridge the linguistic divide between Japanese and English CC research, as the 4 organizations discussed here have been sparsely covered (if mentioned at all) in English CC literature. Secondly, despite the relative abundance of LETS related academic literature, there is very little detail regarding this particular interpretation of LETS, which this paper aims to remedy.

5.1 Research Questions

RQ1: What separates a LETS Passbook Community from the original LETS model?

RQ2: What are the characteristics of these Passbook Communities that have encouraged their long-term durability in Japan?

5.2 Research Sites

The research sites are the following 4 CC organizations: Peanuts, Maayu, Awa Money and Yorozu Ya. Two organizations are located in urban areas and two in rural areas. The basic information on these organizations can be seen in table 1 below.

Table 1: Research Sites

CC Organization	Operating Years	Location	Registered Users
<i>Awa Money</i>	2001 - Present	Chiba (rural)	≈ 300
<i>Yorozu Ya</i>	2009 - Present	Kanagawa (rural)	≈ 1100
<i>Maayu</i>	2008 - Present	Nagano (urban)	≈ 182
<i>Peanuts</i>	1999 - Present	Chiba (urban)	≈ 4000

Source: Created by Authors

6. METHODOLOGY

6.1 Methodology Summary

The Four Passbook Communities were examined using a multiple case study approach rooted in aspects of Grounded Theory (GT). Data was primarily gathered through semi-structured interviews with CC organizers, observation of CC activities and surveys conducted on CC users of two of the organizations (Maayu and Awa-Money). In order to prepare for the interviews, data was gathered via the homepages of the organizations as well as previously published research. Follow-up questions were asked via email. The observation of the Awa-Money and Maayu activities coincided with convenience sampling of the members of those CC organizations. Awa-Money's observation took place during the yearly Awa-Money festival. Maayu's observation was a focus group where the primary author gave a presentation and the CC members shared their views on their activities. The primary author then observed a planning meeting of Maayu's activities.

The interview data, which was the primary data set, was coded and organized according to GT procedures to create categories that described the operation of these CC systems. The coding results can be seen in table 3, which shows 12 (out of 29) emergent categories (left column) that were shared across at least 2 organizations. These common categories framed and highlighted key areas of the operations of these organizations and were subsequently further examined through follow-up questions, observation, surveys and literature comparisons.

Table 2: Data Gathering

	CC Name	Total Interview Time	Follow-up Interview by Email	Observation	Survey of CC Users
3	Awa Money	27 min	Twice	1 Observation	Survey
6	Yorozu Ya	25 min	Twice	X	X
9	Maayu	33 min	Once	1 Observation	Survey
10	Peanuts	54 min	X	X	X
		2 hours 20 minutes of Transcribed Interviews	5 Typed Interviews	2 Observations	2 Surveys

Source: Created by Authors

Table 3: Comparison Table of Shared Categories that Describe the Operations of the Research Sites

		Awa Money	Yorozu Ya	Maayu	Peanuts
1	Leadership Continuity	○	○	○	○
2	Community Development Focus	○	○	○	○
3	Minimal Funding Needs	○	○	○	○
4	Easy Passbook management	○	○	○	
5	Minimal Business links	○	○	○	
6	Members Mainly Migrants	○	○		
7	Relaxed approach		○	○	○
8	Alternative to market values	○		○	
9	Mailing list or Online Social Networks useful	○	○		
10	Independent Bottom up	○	○		
11	Face to face meetings	○		○	
12	Passbook disadvantages	○	○		

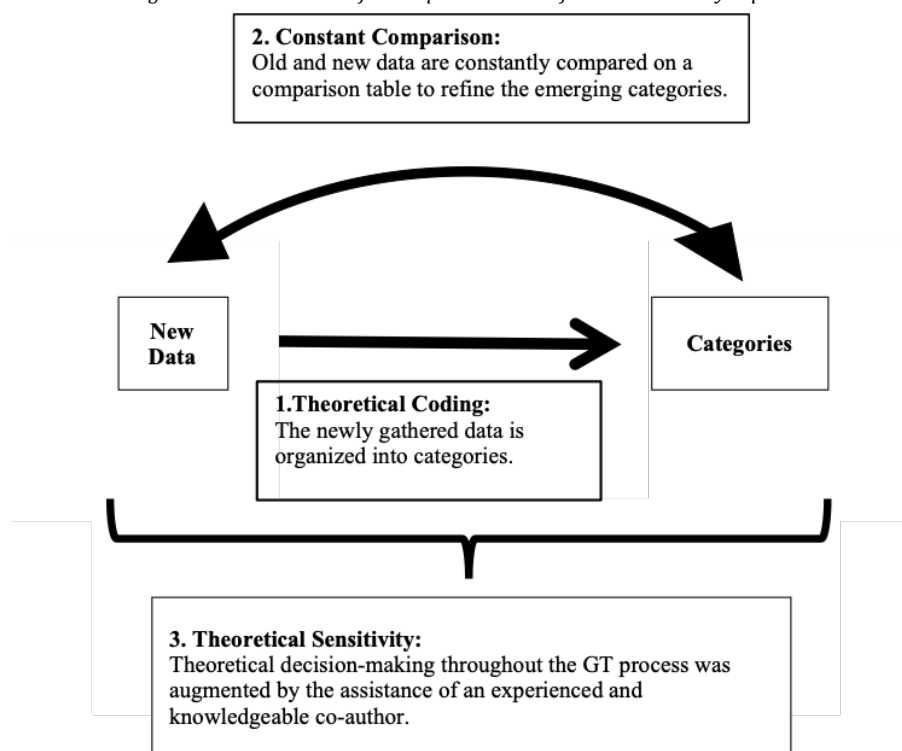
Source: Created by Authors

6.2 Grounded Theory Aspects

GT is a largely qualitative research methodology that provides “written guidelines for systematic qualitative data analysis with explicit analytic procedures and research strategies.” (Charmaz, 2000, p.512) This paper is not a complete implementation of the GT procedures but utilizes certain aspects of the methodology, namely Theoretical Coding, Constant Comparison and Theoretical Sensitivity. These are elaborated on below.

- Theoretical Coding is a 3-step procedure to process qualitative data by categorizing and grouping similar examples from the data into codes and concepts that can be compared, analyzed and later combined to create an emerging theory (Corbin and Strauss, 1990, p.12; O'Reilly, Paper & Marx, 2012, p.251). In this investigation 525 codes were created through a line-by-line analysis of the interview data. These codes were then organized into 29 categories and 3 core categories, which emerged from a process of constantly cycling back and forth from the first bits of data to the last in a refining process known as Constant Comparison (Glaser, 1998, p.147). A representative example of the 3 Stage Coding Process can be seen in appendix 1.
- Theoretical sensitivity is described as “an abstract term that refers to a researcher’s ability to give meaning to data and to recognize data that have pertinent meaning to the emerging theory versus data that do not.” (O'Reilly, Paper & Marx, 2012, p.254). Given that all the interviews were conducted in Japanese by the principal author who (despite having reached the Japanese proficiency Level of N2) is not a native Japanese speaker, a Japanese researcher (the co-author) participated in the data analysis process. The co-author, with more years of experience investigating and publishing research on Japanese CCs, reviewed all the interview data, the analyses and the resulting themes and gave feedback at every step of the process. This was done to enhance the theoretical decision-making in the GT process and to ensure accurate linguistic and cultural interpretation of the data. The implementation of these GT principles is summarized in figure 1 below.

Figure 1: An illustration of the implementation of Grounded Theory Aspects



Source: Created by Authors

6.3 Observation and Surveys

Data gathered from observation and the conducting of surveys was used to supplement the interview data. The observation of CC activities and the conducting of the surveys are interlinked. The first observation was essentially a research presentation by the primary author, which was attended by members of the Maayu CC organization followed by a focus group discussion of their experiences and finally an observation of a planning meeting for future Maayu events. The primary author also distributed the survey at that meeting. The second observation took place at the yearly Awa Money Festival, where the primary author observed activities, conversed with Awa Money members, and distributed surveys to members that attended the event. The aim of the surveys was to gather data from the users' perspective. The survey investigates the characteristics of currency users (sex, age, occupation etc.), their motivations and intentions for using a CC, and their frequency of use. With Maayu there were 36 respondents, which amounts to around 20% of all members, and with Awa Money there were 29 respondents, which amounts to around 10% of the total membership. Both surveys were conducted using convenience sampling. The overall data collection strategy was to gather data from the CC organizers/leaders through the interviews and then to complement this with data gathered from the CC members through observation and surveying.

7. FINDINGS

7.1 Overall Description

All 4 Passbook communities share a similar basic framework whereby they enable person-to-person transactions among a network of users. The exchange mechanism is quite basic and generally speaking there is little emphasis on linking with local businesses (With the exception of Peanuts). To set up such a Passbook Community involves the following essential process:

Register new members and give each member a Passbook (very similar to Japanese bankbooks) for recording their own transactions. An example of a Yorozu Ya Passbook can be seen in figure 2.

Next, create a platform for transactions to take place. This can be done through online social networks, a mailing list or regular meetings / events or even a digital online format (Peanuts). Both Awa Money and Maayu have monthly meeting opportunities for their members where they exchange goods, services, and information.

The mechanism is quite simple as no currency needs to be printed and setting up a digital currency system (as with Peanuts) is optional. The LETS double-entry bookkeeping method described in 2.1, by which transactions are recorded is simple and intuitively understood by participants. The big difference with LETS Passbook Communities is that, unlike the original LETS systems, users do not report their transactions to a central administrator or treasurer. Instead, all the responsibility for correctly conducting and recording transactions is on the users. A wide range of products and services are exchanged on these networks including 2nd hand clothes, homegrown fruit and vegetables, toys, acupuncture, basic repair services, assistance with house or garden work and others. Once such a basic network infrastructure is created, little supervision is required. The reduced administration burden was also noted in the LETS Passbook system used in Halle Germany (Greco, 2001, p.46).

Figure 2: Example of a well used Yorozu Ya Passbook with several recorded transactions

日付	取引の内容	プラス	マイナス	残高	サイン
	知恵袋				
	ミニ太陽光発電 WS		-2000		高橋
	家電修理		-3000		藤野
	日曜大工	2000	+2000		キハ
	木工おもちゃ		-2000		赤木
	パン		-1000		田中
	糸の洋服キット		-3000		山本
	クッキー. 子ども. 古着		-7000		土
	ペレットストーブ	5000			
	ペレットストーブ	5000			
	ペレットストーブ	5000			

Source: NPO Greenz (2006)

7.1.1 Peanuts' Two Points of Divergence

By looking at the comparison table (Table 3), it can be seen that, aside from the 3 core categories, there is a divergence between Peanuts and the other 3 organizations. There are two aspects to this divergence. Firstly Peanuts, in addition to a Passbook mechanism, also have a digital version of their currency. This adds a complication to their exchange mechanism (primarily extra maintenance cost) which the other organizations do not have. Secondly and more significantly, Peanuts is far more embedded in the local business community. Peanuts has 50 – 60 participating business (Kaiho M, 2020, personal communication), whereas the other 3 Passbook Communities have less than 10 each. This link to the local business community is mainly due to one their main organizers, Mr. Kaiho, being a local businessman for over 50 years as well as the local shopping association chairman for 7-8 years (Kaiho M, 2020, personal communication).

Consequently Peanuts, unlike the other 3 research sites has far stronger ties with local businesses and community organizations. As mentioned above in 2.2 this is unusual as LETS organizations generally find it difficult to attract businesses to their networks (Croall, 1997; North, 1998).

Nakazato and Lim (2016), provide insight into the relationship between the Peanuts network and their participating businesses. They conducted an extensive analysis of the Peanuts network transactions that took place between 1400 network actors over a 10-year period (2000 – 2010). They found that, transactions between businesses were more stimulated through CC because “organization members are already familiar with the demand and supply considerations that are necessary for forging contractual relationships. Additionally, a mismatch between demand and supply was more likely to exist among individual members, leading to higher transaction costs for negotiations.” (Nakazato and Lim, 2016, p.1190). Furthermore, they state that transactions were concentrated around core organizational members who “have also played a central role in enrolling new individual and organization members for ‘Peanuts’ and offered their spaces for multiple purposes...Thus, these central local shops are regarded as the wellspring of ‘Peanuts’ activities and a space for community building.” (Nakazato and Lim, 2016, p.1190). However, they do also state that, “Because the community economy is not self-sufficient in meeting the needs of local businesses, the flow of CCs cannot be balanced or generalized. Therefore, the CC system needs to encourage other businesses that supply broader types of services and goods in the community to become members of the CC system to manage the hierarchical structures among them.” (Nakazato and Lim, 2016, p.1191). This seems to suggest that member businesses accumulate currency. In short, while the Peanuts member businesses’ participation supports community development, there are not sufficient goods and services offered by businesses in the network for the Peanuts CC to induce any kind of significant economic stimulation or development. Aside from the above mentioned two points, Peanuts has much in common with the other 3 organizations in terms funding and administration requirements.

7.2 RQ1: Minimal Funding and Administration

With regards to the first research question, it is clear that a key factor separating these Japanese Passbook communities from the standard LETS systems discussed in the literature are the funding and administration burdens. One of the 3 core categories all 4 organizations shared was Minimal Funding Needs. Awa Money (≈\$1,100), Maayu (≈\$1,500) and Peanuts (≈\$1,500 - \$2,200) have relatively small yearly budgets. The representative for Yorozu Ya did not give a specific amount for their yearly budget but stated that their only income source was a one-time membership registration fee of ¥ 1,000. With an estimated 5 - 6 new members a month (Takahashi, Y. personal communication, November, 2018) their yearly income would be around \$440 a year.

A key reason for the low funding requirements is the minimal supervision that is needed to administer the Passbook mechanism. Maayu representative, Yasui-san explains why they opted for the Passbook system:

“Another thing is that issuing banknotes is very difficult to manage, isn't it? It's a lot of work and it requires a lot of energy. So, we avoid that. We wanted to avoid that and make it as simple as possible so that we can manage it ourselves and be responsible for it, which is the main reason why we went for the Passbook system.” (Yasui, K. personal communication, November, 2018)

Awa Money's representative offered a similar opinion when he said that,

“There was an opinion that the Passbook type is less burdensome for the administration. Once the Passbook is handed over, it is left to the user to manage it.” (Hayashi, Y. personal communication, December, 2018)

Thus, with the users being responsible for recording transactions, the remaining required administration is significantly reduced. Yorozu Ya's representative stated the following with regards to the administration burden of the organizing committee:

“There are about six of us in Yorozu at the moment. So, we don't do a lot of work, as I said before, so what we do is manage the mailing list, and we have an information session once a month for people who want to join Yorozu. It's an hour-long briefing and we issue the bankbook. We also have a party or festival once a year, but that's about it.” (Takahashi, Y. personal communication, November, 2018)

Consequently, all these organizations are characterized by either easy management of the exchange mechanism, or a relaxed informal approach that does not place strain on the members or organizers. This was evident in the two observation visits conducted by the primary author where a relaxed communal atmosphere was palpable with both organizations (Awa Money and Maayu). Furthermore, in each Passbook Community, members or organizers run all activities and events on a volunteer basis. Peanuts' representative Mr. Kaiho, when discussing the organization of their events and activities, says the following:

"If it's a Saturday market, people will naturally raise their hands and do it. When it comes to the beautification of the school road, people raise their hands and take the lead. In addition, there are other things, but most of them are voluntary. There are other things as well, but most of them are done by people who voluntarily raise their hands and recruit others." (Kaiho, M. personal communication, May, 2020)

This informal approach is typical of these networks and most likely a key factor of their longevity. This is further demonstrated by Maayu's representative, Yasui san:

"We don't want to force ourselves to do things we don't want to do, so we try to do things that are fun and that we want to do, so we don't have too many problems." (Yasui, K. personal communication, November, 2018)

The nature of events and activities is broad across the 4 organizations but all have a focus on community building through voluntary action. Before the Covid-19 pandemic Maayu members would have monthly activities including sake tasting and movie nights in addition to their regular monthly meeting (Yasui, K. personal communication, November, 2018). Awa-Money has a monthly cafe event and yearly festival. Peanuts has a monthly study session, a monthly Saturday market event and community cleaning/beautification activities (Kaiho, M. personal communication, May, 2020). Yorozu Ya has the most minimalist approach in regard to organized activities in line with their philosophy of keeping administration as simple as possible (Takahashi, Y. personal communication, November, 2018). They only have one yearly market event, which does not take place on a planned schedule. Overall, the Passbook mechanism in these organizations creates a platform for exchange and interaction that does not place an undue burden on its organizers or members. These low funding and administration requirements are in stark contrast to documented classic LETS systems and a strong contributing factor to these organizations operating for between one to two decades.

7.3 RQ2: Unique Characteristics of LETS Passbook Communities.

With regards to research question 2, there are 3 characteristics of the examined LETS Passport Communities (aside from minimal funding requirements) that have encouraged their long-term development in Japan. These are their compatibility with Japanese cultural norms of reciprocity and obligation, their link to rural revitalization and finally the innate flexibility of the Passbook mechanism. These are each expanded on below.

7.3.1 Compatibility with Japanese Reciprocity and Obligation

As mentioned above Japanese Passbook Communities require almost no administration or supervision and the responsibility for recording transactions is completely on the user. Furthermore, opportunistic behavior by Japanese members was not mentioned by any of the interviewees interviewed for this investigation. One Japanese research paper (Nishibe, 2001) does refer to the prevention of opportunistic behavior. Describing LETS Passbook systems in the early 2000s, Nishibe (2001, p.23) states that in rare cases when a LETS members died or left the network with a deficit, a 'dead' account is created and all deficits transferred to it. Then using account management fees collected from participants (in CC units), the deficit could be gradually erased. He states this measure was primarily implemented to prevent a sense of unfairness developing among participants that could hinder community participation. Despite this one example, the Passbook methodology still stands in stark contrast to the documented supervision and structure that the original LETS CCs required as mentioned in 3.4. Therefore, on the surface at least, it seems as if there is more trust among the members of Japanese Passbook Communities than among the classic LETS systems described in the literature. This paper argues that the elements of reciprocity and obligation within Japanese culture complement the Passbook exchange mechanism, which allows for limited supervision of users.

Historical Importance of Reciprocity among Japanese Volunteer Groups

In an early version of the CC concept, grassroots groups in the Fureai Kippu system focused on supporting the elderly during the 1980s in Japan, worked strictly on a volunteer basis and receiving no remuneration. However, Hayashi (2012, pp.34-35) summarizes 3 reasons why these initial volunteer groups broke with volunteering tradition and charged users of the services a small fee.

- Due to the importance of reciprocity within Japanese culture, elderly people were embarrassed to be receiving these services for free.
- Elderly people receiving these services inaccurately associated them with state sponsored charity, which added to shame of accepting the services.
- In order for the services to be sustainable some kind of funding source was needed.

In order to overcome these issues users were charged small fees and volunteers received small remuneration for the services they provided resulting in the ambiguous term 'paid volunteering' (Yamashita, 2011, p.434). The user fees reduced the feeling of shame felt by older people in receiving the services (Hayashi, 2012, p.35).

Reciprocity and Obligation in broader Japanese Society

Two papers by Ohashi (2008) and Befu (1968) give a view on reciprocity and obligation in broader Japanese society. Ohashi (2008) did a linguistic analysis of Japanese telephone conversations that took place during the end-of-year gift giving season (Seibo). Ohashi writes that "This study reveals that conversational participants cooperate to achieve a mutual pragmatic goal of 'debt-credit' equilibrium. This is a symbolic settlement that is necessary to care for the conversational participants' debt-sensitive face." (Ohashi, 2008, p.2150). Thus, the participants cooperated to achieve balance in the social transaction of gift giving. In an older paper Befu (1968, p.450) writes that, "To the extent that one man's relation to another in Japanese rural society is defined in reciprocal terms, in which the give-and-take of social relations should be fairly rigidly balanced, the concept of giri (a sense of duty or honor) evokes in the tradition-minded rural Japanese the obligation to reciprocate. (Befu, 1968, p.450). Similarly to Ohashi, Befu also mentions the importance of balance in social relations among Japanese. The 'paid volunteer' paradox discussed above is also a result (in part) of the shame and obligation elderly recipients felt at benefitting from volunteer services for free. Consequently, the 'paid volunteering' paradox as well as the balancing of social relations mentioned by Befu (1968) and Ohashi (2008) above, all point to a very real reluctance by Japanese to incur debts in social interactions. Accordingly, this paper argues that Japanese cultural norms of reciprocity and obligation play a role in restraining members of these networks from exploiting the unsupervised Passbook system.

Yorozu Ya's Mutual Exchange

This reluctance to go into 'social debt' is utilized by the Yoroze Ya CC organizers to great effect. According to Kurita and Miyazaki (2018, p.127) "Participants in Yoroze Ya do not perceive negative deductions to their Passbook as something undesirable. On the contrary, they perceive these deductions as opportunities to help others bring out their potential skills. In this way, it is regarded as positive to have more negative deductions against a Passbook." Thus, in the Yoroze Ya system, members are encouraged to go into debt on their Passbooks as it encourages transactions in the network. This is significant as Yoroze Ya has a fairly large network of members (1100 people). Kurita (2020) does an in-depth analysis of the debt aspect of Yoroze Ya exchanges and writes the following:

"If the Yoroze community approves of members going into debt, won't all the members try to get many goods and services? However, this never happens. All members of the community show their commitment to the community by reducing their debt. Members who have a minus balance will think about how they can contribute to the Yoroze Ya community. As a result, members will rediscover their own potential." (Kurita, 2020, p.248).

While it is not explicitly stated, the Yoroze Ya organizers seem to be making use of Japanese users' reluctance for having high debts in the system. In the Yoroze Ya system, this reluctance to be in debt acts as a motivating factor to contribute to the network. This (reciprocity and obligation) aspect of Japanese culture seems to make the LETS

mutual exchange system a good fit in Japan. The result appears to be Passbook Communities that can encourage and sustain transactions over the long-term without the need for burdensome (and costly) central administration or fear of collapsing under opportunistic behavior.

7.3.2 Passbook Communities and Rural Revitalization

With both rural Passbook Communities (Awa Money and Yorozu Ya) there was a link between their activities and the revitalization of rural areas by facilitating the settlement of outsiders to the area. Mr. Hayashi of Awa Money stated that almost all of their members (about 300 people) were migrants from outside their town (Hayashi, Y. personal communication, December, 2018) while Mr. Takahashi of Yorozu Ya stated that around 80% of Yorozu Ya's members (Around 1100 people) were migrants (Takahashi, Y. personal communication, November, 2018). Additionally, 89% of Awa Money's survey respondents stated that they were not born in the local area. Consequently, the influx of outsiders to their respective areas is linked to the durability of both Awa-Money and Yorozu Ya. Furthermore, with Awa Money there is active promotion of the local area. In a follow-up interview Hayashi-san says the following:

"Most of the members of Awa Money are migrants. It is a big advantage that they can find a vacant house for prospective migrants through the network of Awa Money and meet people with the same values soon after moving to the countryside, and this network is leading to the promotion of migration and support for life after migration." (Hayashi, Y. personal communication, December, 2018)

During the observation visit to Awa Money's yearly festival the primary author also had a conversation with a young married couple who were considering moving to the area and were in consultation with Awa Money's representative regarding the move. Yorozu Ya on the other hand does not take an active role in promoting outsiders to move to Fujino. However, it does facilitate outsiders in settling into the area. Takahashi-san of Yorozu Ya said the following regarding the motivation of outsiders to join Yorozu Ya:

"It's a new experience, sorry, a new motivation to become a member of the association. This is because when people around us, who are moving, immigrating, etc., say 'I'm not a member'; the members will say 'it would be convenient if you joined'. And when we say it's convenient, we don't mean financially convenient, we mean it makes life more enjoyable, and at the events, the Yorozu transactions themselves are the main thing, but the information about the events is also passed on. There are events in this area. So, the amount of information that you know changes completely." (Takahashi, Y. personal communication, November, 2018)

Thus, migrants can become more knowledgeable of the local area by becoming members of Yorozu Ya. Consequently, both Yorozu Ya and Awa Money function as resources for outsiders to become more settled in their respective rural regions. An example from the literature provides more evidence of the outsider facilitation role that rural Passbook Communities in Japan fulfill. Yamazaki and Akai (2010) conducted an investigation of a rural Passbook Community in Hyogo prefecture (Mito). An analysis of members' transactions revealed that the overwhelming majority of transaction partners were migrants who had either returned or moved to the local area (U/I Turn People). Interviews with some of these U/I Turn people revealed that joining the Passbook Community gave them opportunities to become more integrated in the local community (Yamazaki and Akai, 2010, p.63). Yamazaki and Akai concluded that a rural Passbook Community has the possibility to serve as a gateway to individuals moving to or returning to rural areas, which matches the findings of this paper. Thus, the interview data, survey data and an example from the literature paint a picture of Passbook Communities in rural areas serving as a gateway for migrants to settle into the countryside.

Traditional Rural Links versus Rural Passbook Links

Despite the clear trend of these Passbook communities being a gateway for migrants to settle into the countryside, it should be mentioned that these rural Passbook communities are distinct from traditional Japanese rural relations. In fact, Yamazaki and Akai's (2010, p.62) study on the Passbook community Mito actually found that it was difficult for the traditional rural relations to be replaced by a Passbook CC network. They quote CC members who state that they had never invited locals to join the CC network as it would be embarrassing to offer the connection of a Passbook network when traditional neighborhood relations were still in place. They add that even the most enthusiastic

CC users were reluctant to offer Passbook membership to locals in rural settlements where traditional associations lingered. On the other hand, in cases where the rural neighborly ties have broken down, there is even less likelihood of these residents wanting to join a CC network. With Awa Money, the overwhelming number of migrants among CC users suggests a similar dynamic to the Mito Passbook community.

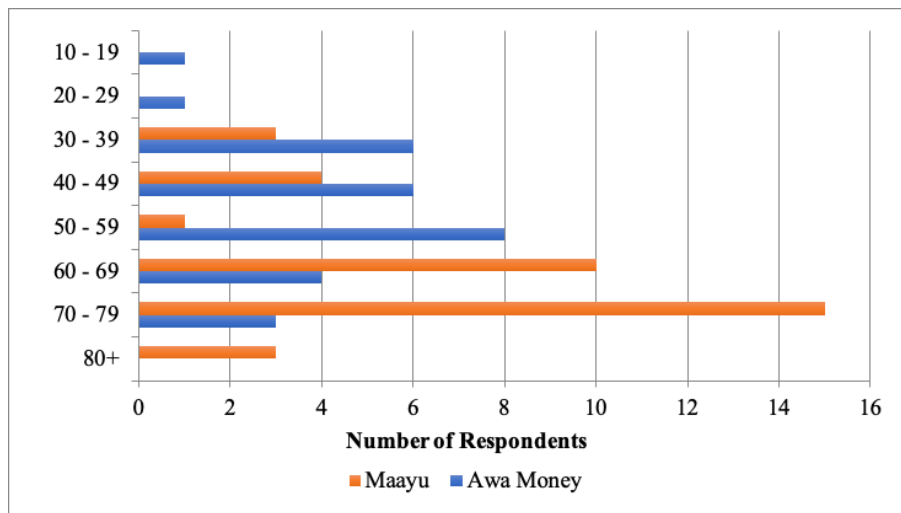
Yorozu Ya might be an exception regarding this distinction between Passbook community relations and traditional rural relations, especially given its larger than usual membership. At the time of investigation, more than 10% of the town had joined the CC network and the Yorozu Ya organizer had hopes of reaching 20% of the local population (Takahashi, Y. personal communication, November, 2018). However, Fujino (where Yorozu Ya circulates) is not your average rural Japanese town and is a special case in many ways. Kurita (2020, p.229 – 234) goes into some depth describing the unique development of the town, firstly as an attractive location for artists, then the establishment of the Steiner Academy of alternative education, followed by the launch of a Transition Town project (2009) within Fujino. The Transition Town project was launched by members of the Japan Permaculture Center (situated in Fujino) and parents of children attending the Steiner Academy. The establishment of Yorozu Ya followed soon after as part of the Transition Town Project. The manner of Fujino's development over the years has certainly made it fertile ground for a CC project. In fact, there are two other less prominent CCs also circulating in the town according to Yorozu Ya's representative! Takahashi-san also stated that the area has seen many migrants move there over the last 50 years and he estimates roughly half of the local population is made up of people who moved in from outside Fujino (Takahashi, Y. personal communication, November, 2018). Consequently, given its unique nature as a progressive small town inhabited by numerous migrants, the distinction between Passbook community relations and traditional rural relations in Fujino is hard to assess at a glance. Although the town itself certainly merits further investigation as a Japanese satellite for the Transition Town movement.

7.3.3 Flexibility of the Passbook Mechanism

The Passbook mechanism seems to have flexibility in the scope of its use and the users it attracts. A comparison of Awa Money and Maayu's members' ages and occupations suggests strongly divergent characteristics among their users. Around 70% of Maayu respondents were older than 60, while 70% of Awa Money respondents are middle-aged (30 – 59) as seen in figure 3. With regards to their occupations, 60% of Awa Money respondents are fulltime employees or self-employed, while 74% of Maayu's respondents are not fulltime employed including 34% of them being housewives (Figure 4). However, both groups have similar motivations for joining their respective networks as seen in figure 5. This indicates that the use of the Passbook mechanism for community development is applicable to divergent population groups in both rural (Awa Money) and urban (Maayu) settings.

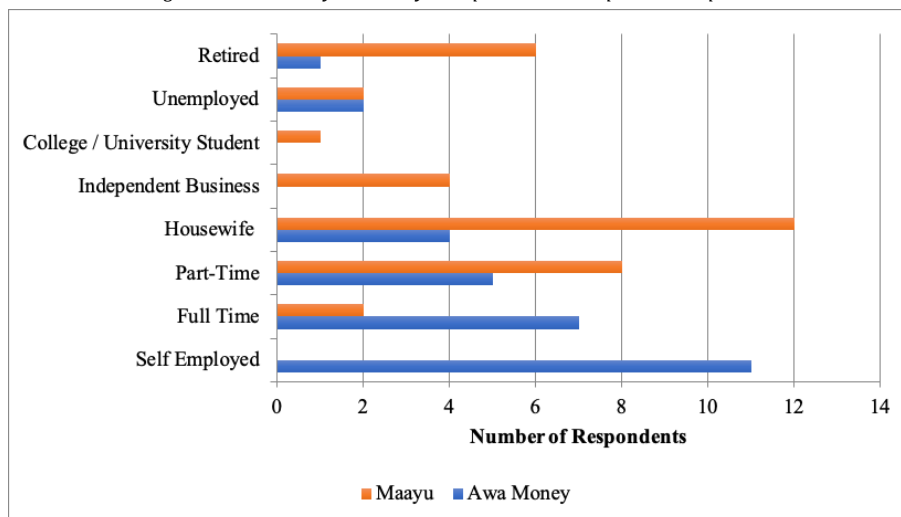
Indeed, the same mechanism has served quite different needs for each of these networks. Awa Money's co-founder emphasizes the importance of trust in their network stating it is like an extension of his family (Hayashi, Y. personal communication, December, 2018). Yorozu Ya has adopted a particularly minimalist approach to their network through collecting no membership fees and perhaps having only one event a year (Takahashi, Y. personal communication, November, 2018). Maayu's network on the other hand is characterized by regular meeting opportunities for their members who appear to have many retirees and housewives in their membership. Finally Peanuts also uses the Passbook mechanism in a manner quite different from the other organizations by centering their network on local businesses and organizations and having a digital option. In September and Kobayashi's (2022) investigation of Japanese CCs it was found that leadership continuity was the key common factor with regards to long-term Japanese CC management, suggesting the direction and development of a CC is largely centered on the main organizers' proclivities and choices. This also appears to be the case with the Passbook mechanism. However, unlike other more complicated CC mechanisms (paper or digital), the Passbook mechanism in Japan allows the social entrepreneur to create a platform for exchange and connection suited to their specific needs and settings and without placing an undue burden on organizers and users.

Figure 3: Awa Money and Maayu Respondents' Age



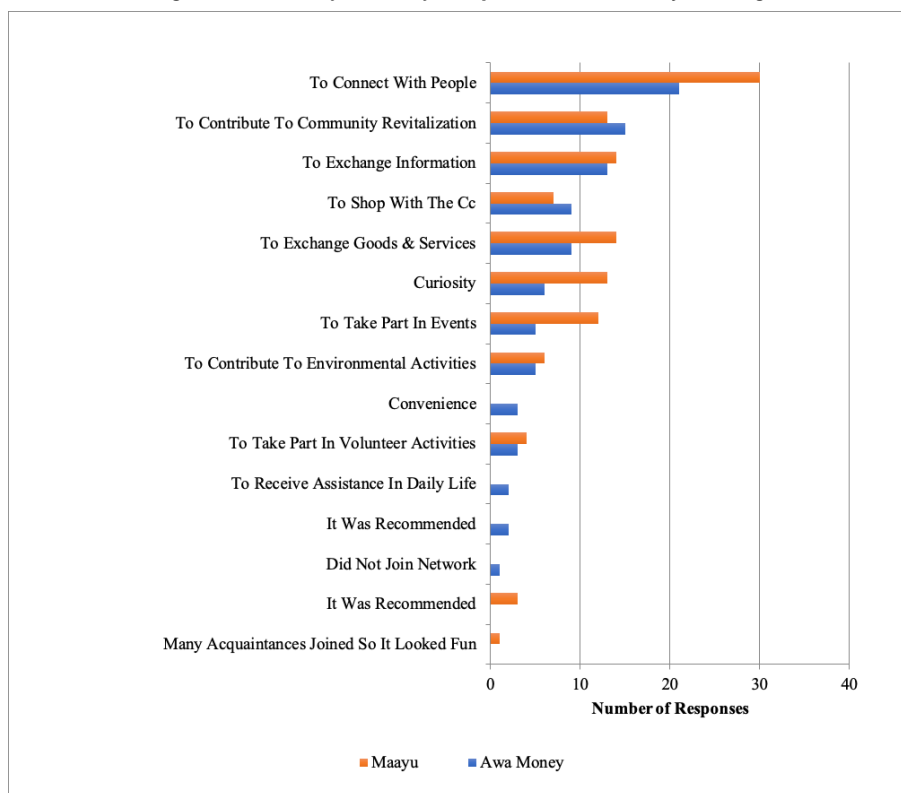
Source: Created by Authors from Survey Data

Figure 4: Awa Money and Maayu Respondents' Occupation Comparison



Source: Created by Authors from Survey Data

Figure 5: Awa Money and Maayu Respondents' Motivation for Joining



Source: Created by Authors from Survey Data

8. LIMITATIONS

The primary limitation of this paper is that it cannot gauge to what extent the findings on these 4 Passbook systems can be applied to Passbook Communities in general in Japan. An examination into the broader state of Passbook Communities in Japan, or an exploration into why failed Passbook communities were short-lived would be more instructive in this regard. Furthermore, a more detailed examination of the development of LETS in Japan, will allow for a comparison between Passbook Communities and classic LETS systems in Japan. A third limitation relates to the lack of auditing oversight in a decentralized Passbook CC network, which could potentially result in an unmonitored overaccumulation of credits. There is a stronger possibility of this happening with Peanuts where imbalances between business members and individual members is more likely. The examination of this particular issue did not fall within the purview of this paper but it is nonetheless an important issue and warrants future investigation.

9. CONCLUSION

This paper has investigated the Passbook adaptation of the LETS CC model and finds that unlike the classic LETS model, these Japanese Passbook Communities have far more lenient funding and administration requirements, which aids their long-term durability in Japan. Additionally, this paper has found that the Passbook's mechanism's seeming compatibility with Japanese cultural norms, its link to rural revitalization and its innate flexibility have also contributed to the long-term development of these Passbook Communities in Japan. The extent to which this Passbook LETS model could be successfully replicated in a different cultural context is an open question, but one that is perhaps worth exploring, especially given that it originated outside of Japan. In many ways the continuation of these Passbook Communities in Japan runs counter to the current trends in CC development in Japan. Izumi and Nakazato (2017, p.43) write that newly launched Japanese CCs are either part of the Ki no Eki system (A CC system linked to forest management with numerous branches), issued on electronic IC cards or "community way" CCs that allocate

donated money for citizen's group support. Despite this, compared to other CC models in Japan, the LETS Passbook mechanism appears to be the most viable option for the bottom-up development of an exchange network to facilitate community development.

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INTERVIEWS

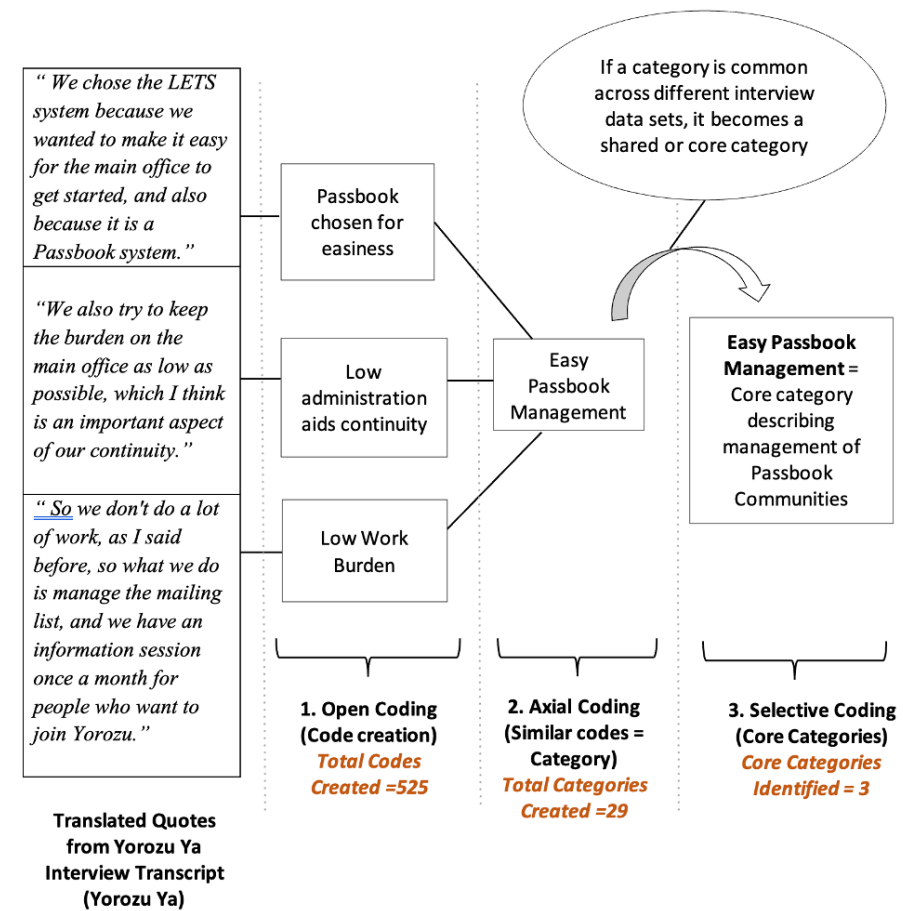
Hayashi, Y. (2018, December) Personal interview. Conducted via telephone

Kaiho, M. (2020, May) Personal Interview. Conducted via telephone

Takahashi, Y. (2018, November) Personal interview. Conducted via Skype.

Yasui, K. (2018, November) Personal interview. Conducted via telephone.

Appendix 1: Representative Example of the 3 Stage Coding Process



Source: Created by Authors