Analysis of Community Currencies as Payment Mechanism for Sustainable Shared Growth

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特定の地域だけで購買に使える地域通貨。その形態はさまざまだが、持続可能な共有型経済ではどのような役割を果たしうるのか。本稿では日本やブラジル、ケニアの実践例を検証して、その可能性を探った。

Abstract

A review of the literature on community currency (CC) was conducted, with the aim of ascertaining its relevance to achieving sustainable shared growth. The review revealed certain levels of differences wherein community currencies are used to a higher degree in developed countries than in developing countries. The result suggests that community currencies could equally play an important role in developing countries. This paper likewise examined the cases in Japan, Brazil, and Kenya to draw possible explanation in the higher transactions cost that developing countries faced in designing and implementing community currencies. Further, the paper included insights from discussions in the Philippines relevant to reconciling the differences.

Keywords community currency (CC), transaction cost theory, sustainable shared growth, community development

Introduction

In the history of man, society, and civilization, the existence of fiat money can be viewed as means that facilitated the evolution of economy in local, regional, and international community. Also, it became a mechanism that economic or business transactions and also individual to individual relationship, individual to group relationship, and even people of a particular community and society flourished. But its purpose or use has limitation in certain circumstances like limited supply of money in the circulation of a particular economy regardless what factors caused it to happen. This can be an opportunity to appreciate other means such as Community Currency (CC) that can bridge this limitation of the fiat money. The community-based organizations or associations, especially when problems on its supply occurs, might think that these strategies be introduced.

Alternative currencies refer to unofficial currencies that exist parallel to the national (fiat) currency and which can exist for a variety of stated purposes. Normally, these are launched at the community level, supported by various organizations or institutions in the area. The higher the monetary stability, the level of financial sector development, and the general level of economic development, the higher the likelihood of existence and the number of alternative currencies (Pfajfar, Sgro, & Wagner, 2012).

CCs could also yield benefits to developing countries. Demographically speaking, developing countries have younger and growing populations. Nevertheless, these countries are beset by problems of unemployment or underemployment, environmental degradation, and poor linkages among businesses and within communities (Pfajfar et al., 2012).

Objectives

The paper is aimed at describing implementation of CC as alternative currency in specific areas and discussing how it became part of the local economy. Also, the

paper depicts level of awareness of members of local cooperative councils, and council representatives on CC, their perceived relevance or needs, and their perceived capacity to implement CC in their transactions. It also presents an analysis of transaction cost for adopting CC among cooperatives in the Philippines

Related Literature

Seyfang and Pearson (2000) stated that there is a diverse range of currencies at the local, regional and international levels. There were differences among initiatives from grassroots movements, and those from public agencies or non-governmental organizations. It also investigated the need for closer study of CCs as policies against poverty and "social exclusion" by the development community.

Developments on CC in Brazil

Complementary currency in the education sector in Brazil was proposed, using the information on the background, objectives, scope and approach adopted. The feasibility of complementary currencies directed at specific sectors and its implementation particularly in the education sector was also studied. (Lietaer, 2006).

Referring to CC as social currency or social money in Brazil, (Freire, 2009) CC is based on structural tenets, recognized and determined as lawful. Related governing matters and administrative characteristics are also the reasons why there is alignment between CC and public policy instruments and monetary policy.

The progress of CC implementation in Latin America showing CC's effective transformation as "grassroots innovation" seems to be necessary for sustainability, prosperity and democracy in the area (Place, 2011). An analysis was also made by the Community Development Bank in Brazil to show the symbolic role of currency as a bond to build the community; as a medium for institutionalization of the community and as a catalyst to explore different formats and adaptation to community development perspectives (Fare, de Freitas, & Meyer, 2015).

Developments on CC in Japan

The different strata of Japanese schools relative to complementary currencies and their relationships were studied. Models used were described and the relevance of these experiments to the rest of the world was evaluated (Lietaer, 2004). A similar mechanism called "Fureai Kippu" whose purpose was to provide care for older people particularly its contributions, benefits and operational difficulties was found to be so complex and difficult to evaluate (Hayashi, 2012).

Likewise, a study on CC coupon circulation among shopkeepers in Tokyo, Japan determined the relationship between CC circulation and shopkeepers' behavior. It was concluded that use of CC coupon and redemption is affected by the respondents' level of comprehension, "psychological resistance", and the procedures followed in accounting (Kurita, Miyazaki, & Nishibe, 2012). A CC organization in Japan and one in Sweden were comparatively studied. Results showed that transfer of social support by CC makes users aware that it was part of their lives. CC was likewise a source of supplementary support and was deemed effective as a social support system for residents (Nakazato & Hiramoto, 2012).

CC systems are most developed in Japan but there was a dearth of literature written in other languages, which hindered its proliferation in other countries. CC as another means of exchange has been transformed by Japanese practitioners and promoters over the years (Hirota, 2011). A study in communities in Japan which determined whether volunteers were more motivated with CC than without CC showed that CCs are likely to raise motivation of volunteers. There were also different perceptions towards CCs even though CCs and cash have the same monetary value (Kurita, Yoshida, & Miyazaki, 2015).

Developments on CC in Kenya

Another CC program called Eco-Pesa in informal settlements of Kenya, was found to be cost effective, with a mechanism for tracking development funding and increasing overall accountability. CC was considered a tool to promote development but it also needs further implementation and research (Ruddick, 2011).

The importance of education on CC is considered as one of the critical factors in the success of CC systems. Key actors identified are system designers, administrators and public decision makers. It was also noted that coordinated and strategic support would enhance the effectiveness of the strategies implemented to educate these people (Rogers, 2011).

CC would depend on how community or certain organization prefers its usefulness. CCs can be categorized into community, complementary and local currencies and once classified, these currencies can present the combinations which would enable one to determine forms of non-national and not-for-profit currencies from for-profit currencies (Blanc, 2011).

CC system was implemented in Kenya through "collaborative credit" model, locally known as "Bangla-Pesa". Immediate positive benefits of the CC system were observed in informal settlements that trade goods and services through a network of local business. The model was recommended for replication for sustainable development programs in the future (Ruddick, Richards, & Bendell, 2015).

The role of CC in the local and regional government is relevant to make use of assets that are under-utilized and enable employment and economic sustainability (Spano & Martin, 2018). Therefore, local communities should participate in existing CC circles for the purpose.

Theoretical Framework

Robert Coase pioneered the transaction cost economics which later became popular as *Transaction Cost Theory.* The inclusion of all costs is considered to complete a decision. Cost and efficiency could be a good measurement of productivity of any organizations, programs or projects, activities, etc. Cost is a requirement to any deliverable in the form of transactions. Efficiency will depend on how activities develop in the three major stages pertaining to cost such as actual search and information cost, bargaining and decision cost, and policing and enforcement cost. Actual search and information cost require the need to collect and establish basic information which can be done through searching and initial building of information. This can refer to the establishment of efficient database or initial information that can be used in planning workshops, focus group discussions, or any meeting with the same objective incurring certain cost. Bargaining and decision cost bring the transaction to the time of exchange of leverage and decision making. The cost of any bargaining and decision processing will depend on the rate of how accurate information can be retrieved and be used to arrive in a sound decision. Decision making skill is another dimension that can be observed during transaction and using the given information. The policing and enforcement cost can be seen during the time where cost incurred is related to how certain outputs such planned activities (projects or programs, after sale activity, etc.) are monitored and evaluated for control which can be observed and measured. Efficiency in every transaction is expected to potentially contribute to the overall activities at lower cost but high in quality of output. Transfer of information and capacity of people involved in transactions could also be observed in studying the progress and appreciating quality of the transaction. "Focusing on firm boundaries, *transaction cost theory* aims to answer the question of when activities would occur within the market and when they would occur within the firm" (Williamson, 1991 as cited in Greve & Argote, 2015).

Sustainable Shared Growth refers to three economic goals: efficiency, equity, and environmental friendliness.

Conceptual Framework

CC can only be applied if the people in the locality understands and acknowledges its purpose and usefulness in their day-to-day activities or business operations, and how they can use it to facilitate transactions. In this study, cooperative councils were the selected respondents to find out how CC can be introduced and adopted by the cooperative council members in their cooperative in the future. There were three main components that were analyzed on the respondents: their level of awareness on CC, their perceived level of relevance given to CC, and level of capacity to implement.

These three competencies shall describe readiness of the community and its individuals to implement use of CC in the local setting.

Transaction Cost Theory was used to analyze these components and define its conditions for future actions. With the use of transaction cost model, costs including the accounting of *actual costs* of *search and information*, *bargaining and decision*, *policing and enforcement* assisted the study in determining cooperative councils' capacity to implement CC in their operations and transactions. Transaction costs are high when the ratings of *level of awareness, level of relevance, and level of capacity* to implement are low. When these ratings are high, it is the ideal situation to adopt CC as payment mechanism because high ratings are indicators of readiness to adopt CC.

In analyzing CC based on 'transaction cost theory', lower cost means effective transaction cost. Lower transaction cost can help facilitate adoption of 'CC' but it would require high ratings on level of awareness, level of relevance, and level of capacity to implement. It may not directly affect 'sustainable shared growth' but it can also impart bits of contribution to achieve it in the future.

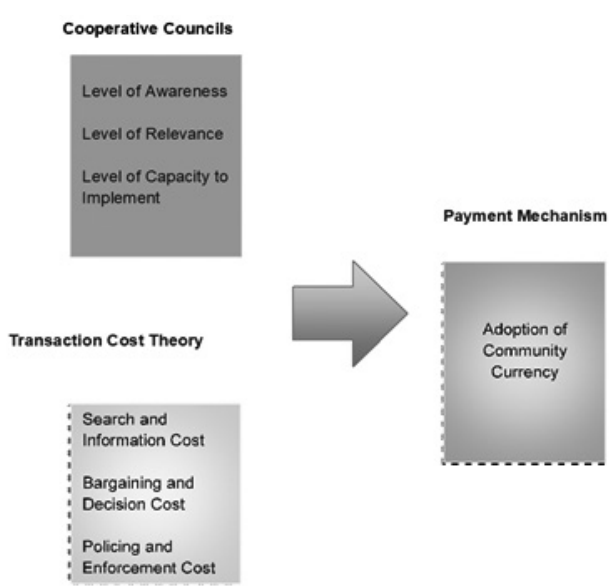

Figure 1. Transaction Cost of Adopting CC as Payment Mechanism

Methodology

Using survey questionnaire, primary data were gathered to determine the level of awareness, level of relevance, and level of capacity to implement as perceived by the respondents on CC.

A survey was conducted in selected provincial and city cooperative councils in the Philippines. The study was accomplished through purposive sampling, with 27 respondents including provincial cooperative council composed of representatives from local government units, cooperatives, and line agencies who are stakeholders for cooperatives. Frequency, percentage, and weighted mean were used to present the results of the study. Weighted mean adjectival ratings are classified as low (1.00 to 2.99) and high (3.00 to 5.00).

Results and Discussion

Respondents Profile

Most of the respondents or 31 percent out of 26 has age range between 56 and 65 years old, while 27 percent has age range of 46-55 years old. Majority or 81 percent of the respondents were female, and 19 percent were male. Also, majority or 85 percent were Roman Catholic while 15 percent belonged to other Christian denominations.

Assessment of their level of awareness

Awareness of CC In Table 1, 26 percent out of 27 responses, answered 'Definitely No', 'No Idea' and 'Maybe Yes' respectively with weighted mean of 2.96. These showed that most of the respondents did not have an idea about CC.

High level of knowledge on CC Most of the respondents or 42 percent answered, 'No Idea' and 23 percent answered 'Definitely No' which yielded the weighted mean of 2.62; the lowest among listed statements under the level of awareness. The respondents have low level of awareness on CC.

Perceived example of CC Most of the respondents or 43 percent believed that CC referred to the "peso issued by the Bangko Sentral ng Pilipinas" which confirmed that the majority did not have an accurate idea of CC. Other examples except "None of the above" got

weighted means ranging from 2.94 to 3.48. "None of the above" got a weighted mean of 3.33, with the lowest number of responses among the examples mentioned.

CC's geographical coverage Most of the respondents or 38 percent answered, 'Maybe Yes', having weighted mean of 3.67. This showed that most of the respondents perceived CC has certain geographical location.

CC as a means of payment In Table 1, 52 percent out of 25 respondents, answered 'Maybe Yes' having weighted mean of 3.68. This showed that most of the respondents have an idea about the main use of CC.

Using transaction cost theory, the level of awareness has an overall weighted mean of 3.27 which is considered high rating which means transaction cost would be low. The results showed that there was low level of awareness of its existence, but respondents had an idea of its possible use based on the term "community currency".

Table 1. Showing respondents' level of awareness on CC

Level of Awareness Statement	Definitely No (1)		Maybe No (2)		No Idea (3)		Maybe Yes (4)		Definitely Yes (5)		N	%	Weighted Mean	Adjectiv Rating
	F	%	F	%	F	%	F	%	F	%				
1. Have you heard about CC	7	26	2	7	7	26	7	26	4	15	27	100	2.96	Low
2. Do you have high Knowledge about CC	6	23	4	15	11	42	4	15	1	4	26	100	2.62	Low
3. Which of the following is an example of CC?														
a. Gift certificate/voucher	2	11	1	5	6	32	8	42	2	11	19	100	3.37	High
b. Debit Card	3	16	0	0	6	32	9	47	1	5	19	100	3.26	High
c. Old expired coins or bills	4	22	2	11	5	28	5	28	2	11	18	100	2.94	Low
d. Peso issued by the Bangko Sentral ng Pilipinas	3	14	1	5	4	19	9	43	4	19	21	100	3.48	High
e. Credit card	2	9	3	13	4	17	13	57	1	4	23	100	3.35	High
f. None of the above	0	0	2	17	6	50	2	17	2	17	12	100	3.33	High
4. CC has a particular coverage (Geographical)	2	8	1	4	6	25	9	38	6	25	24	100	3.67	High
5. CC can be used as a means of payment	2	8	2	8	3	12	13	52	5	20	25	100	3.68	High
Overall Weighted Mean													**3.27**	**High**

Adjectival Rating:
1 to 2.99 – Low
3 to 5 – High

Level of Relevance

Money is insufficient despite availability of goods In Table 2, 48 percent out of 25 responses answered for both 'Maybe Yes' and 'Definitely Yes' respectively with weighted mean of 4.44. These showed that most of the respondents perceived the importance of CC as alternative when money is insufficient, and goods are available.

A lot of environmental problems In Table 2, 64 percent out of 25 responses, answered 'Maybe Yes' and having weighted mean of 4.04. These showed that most of the respondents perceived many environment related problems, an opportunity where CC is needed and can be helpful especially after occurrences of calamities that would affect supply of money.

Business transactions involve in credit In Table 2, 50 percent out of 26 responses, answered 'Definitely Yes' and having weighted mean of 4.12. These showed that most of the respondents recognized that a lot of businesses need credit in their transactions. Conditions such as these can be conducive to use CC as means to lend and repay.

Non-payment of credit as major problem In Table 2, 50 percent out of 26 responses, answered 'Definitely Yes', and having weighted mean of 4.04. These showed that most of the respondents perceived that inability to pay loans is a major problem. One cause of non-payment is insufficient supply of money in the area which can be addressed by using CC.

Majority in the community are poor In Table 2, 50 percent out of 26 responses, answered 'Maybe Yes' and having weighted mean of 3.69. These showed that most of the respondents recognized that there are a lot of poor people in their area. CC can be helpful in financing livelihood activities and transactions.

Good use of CC In Table 2, 65 percent out of 20 responses answered 'Maybe Yes' to use of CC after a calamity, with weighted mean of 3.85. Fifty-seven percent out of 21 responses, answered 'Maybe Yes' to use of CC when there is price hike in basic commodities, with weighted mean of 3.95. Out of 21 responses, 48 percent answered 'Maybe Yes' to use of CC when there is price hike in raw materials for production with weighted mean of 3.86. Out of 20 responses 45 percent answered 'Maybe Yes' to use of CC when there is chaos and security threatening occurrences" with weighted mean of 3.50. Sixty-two percent out of 21 responses answered 'Maybe Yes' to use of CC in normal life situation with weighted mean of 3.76. These imply the perceived relevance of CC in different life situations.

Need for CC in developed countries In Table 2, 62 percent out of 24 responses, answered 'Maybe Yes' to need for CC in developed countries with weighted mean of 3.83.

Need for CC in developing countries In Table 2, 64 percent out of 22 responses, answered 'Maybe Yes' to need for CC in developing countries with weighted mean of 3.91.

Based on the above, the respondents acknowledged that CC may be applicable to both developed and developing countries.

Level of relevance has an overall mean of 3.92 or high which would indicate that there was perceived relevance of CC among the respondents. This high rating requires low transaction cost to adopt CC.

Level of Capacity to Implement

This component determined the potential capacity of the community as perceived by the respondents to adopt transaction or payment mechanism using CC.

Various products and services In Table 3, 54 percent out of 24 respondents, answered 'Maybe Yes' to various products and services with weighted mean of 4.01. This showed that most of the respondents recognized various products and services in their area, indicating the necessary capacity of the community to adopt the use of CC.

Products and services from the community In Table 3, 44 percent out of 25 respondents, answered 'Maybe Yes' that products and services are coming from their community, with weighted mean of 3.08. This showed that most of the respondents recognized the economic condition in their area which would indicate their capacity to implement the use of CC.

High level of trust in the community In Table 3, 54

Table 2. Perceived Level of Relevance

Level of Relevance	Definitely No (1)		Maybe No (2)		No Idea (3)		Maybe Yes (4)		Definitely Yes (5)		N	%	Weighted Mean	Adjectiva Rating
	F	%	F	%	F	%	F	%	F	%				
1. There were times money is insufficient despite availability of goods in the community.	0	0	0	0	1	4	12	48	12	48	25	100	4.44	High
2. We have a lot of environment related problems.	1	4	0	0	2	8	16	64	6	24	25	100	4.04	High
3. There are many business transactions that involve credit.	2	8	2	8	0	0	9	35	13	50	26	100	4.12	High
4. Non-payment of credit is a major problem of people in the community.	2	8	3	12	0	0	8	31	13	50	26	100	4.04	High
5. Majority of people in the community are poor.	1	4	5	19	1	4	13	50	6	23	26	100	3.69	High
6. The CC is good to use in the following a) After a calamity (e.g. earthquake, typhoon, etc.)	1	5	0	0	3	15	13	65	3	15	20	100	3.85	High
b) When there is price hike among basic commodities such as rice, sugar, cooking oil, etc.	1	5	0	0	3	14	12	57	5	24	21	100	3.95	High
c) When there is price hike in raw materials for production	1	5	0	0	5	24	10	48	5	24	21	100	3.86	High
d) When there is chaos and security threatening occurrences	2	10	1	5	5	25	9	45	3	15	20	100	3.50	High
e) In normal life situation	1	5	1	5	3	14	13	62	3	14	21	100	3.76	High
7. Economically developed countries such as Taiwan, South Korea, Japan, and Singapore may demonstrate need for CC	2	8	0	0	3	13	14	58	5	21	24	100	3.83	High
8. Economically developing countries such as the Philippines, Vietnam, Cambodia, Myanmar, and Laos may demonstrate great need for CC	1	5	0	0	3	14	14	64	4	18	22	100	3.91	High
Overall Weighted Mean													**3.92**	**High**

Adjectival Rating:
1 to 2.99 – Low
3 to 5 – High

percent out of 24 respondents, answered 'Maybe Yes' to high level of trust in the community with weighted mean of 3.91. These showed that most of the respondents perceived high trust among members of their community to do business activities, which manifested also the capacity to implement CC.

Generally, the level of capacity to implement has an overall weighted mean 3.67, which also means low transaction cost. This showed that based on the respondents' perception about their community with all those features, it also manifests their capacity to implement the use of CC as transaction or payment mechanism.

Table 3. Perceived level of capacity to implement

Level of Capacity to Implement	Definitely No (1)		Maybe No (2)		No Idea (3)		Maybe Yes (4)		Definitely Yes (5)		N	%	Weighted Mean	Adjectival Rating
	F	%	2	%	3	%	4	%	5	%				
1. I am often aware of the various products and services in my community	1	4	2	8	0	0	13	54	8	33	24	100	4.04	High
2. Most of these products and services are from our community	2	8	7	28	4	16	11	44	1	4	25	100	3.08	High
3. There is a high level of trust among the members of the community.	1	4	2	8	2	8	13	54	6	25	24	100	3.88	High
Overall Weighted Mean													**3.67**	**High**

Adjectival Rating:
1 to 2.99 – Low
3 to 5 – High

Conclusion

The experiences of Brazil, Japan, and Kenya in implementing CC have gone through different hurdles. It can be observed that successes of its implementation depended on how communities or community organizations recognized the purpose of community currencies as payment mechanism. Their experiences in CC provide lessons that can be taken to explore its potential as a tool in pursuing community shared growth.

If a particular CC model for the research in the Philippine setting were to be adopted, it tends towards the Kenyan model since it is more open to involvement from someone outside the community. Moreover, it is the simpler CC model since it requires only the issuance of the CC, without microcredit financing, and focuses on prosumers instead of dividing the community into consumers and producers. The Kenyan model is also more aligned to zero-interest rate preference which is relevant to the search for a CC that contributes to sustainable shared growth.

The case of the Philippines, particularly on level of awareness, level of relevance, and level of capacity to implement are all showing high rating which also correspond to low transaction costs. Likewise, these manifest people and communities' potential to adopt the use of CC. However, the result also indicated that education should be given priority to promote the use and purpose of CC.

Recommendations

It is proposed that CC is efficient that it helps a community reach its production possibility frontier when incomes are reduced, so that the budget line is below its efficient point. It is proposed that a CC is equitable since it seeks to empower a marginal community, but more importantly because it applies a zero-interest principle.

It is proposed that a CC is environmentally friendly, since it could be utilized to pay for environmental services, among other services that are not usually traded in the market.

Development practitioners can further explore how to introduce CC as means in helping communities do their transactions efficiently. Likewise, they can also promote strengthening trust or confidence among them.

Researchers can further study the legal, political, cultural, and economic aspects in using CC and explore other areas where it can be helpful to make community progressive.

The local government units will have the opportunity to utilize CC in effectively optimizing the resources of the community through policy development and program management.

Policy makers concerning currencies can look into implementation of community currency system by formulating related laws that support its utilization.

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