

Social Accounting for Nonprofit Organizations: Visualizing the Invisible Value of Social Impacts

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Traditionally, financial accounting records revenue and expense based on present or future income and expenditure. Nonprofit organizations have not been able to accurately inform stakeholders of their social activities because of the limited nature of financial reporting. To address this issue we focus on social accounting methods to calculate invisible social costs and benefits using the 'social value' concept. In our case study, experimental analysis of a social value statement found total inputs, including volunteer activities and out-of-pocket expenses, were five times higher than actual expenditure. Furthermore, findings indicate the social value statement expands social accounting methods and verifies invisible community contributions by nonprofit organizations.

Key words: social accounting, social value statement, social value index, accounting for volunteer contributions, social return on investment (SROI)

1. Introduction

In ordinary financial accounting, records are made based on present or future income and expenditure. However, nonprofit organizations often provide free or low of cost support for the socially vulnerable, while trustees and staff work as volunteers. Therefore traditional accounting methods do not accurately capture nonprofit organizations' work, and financial statements do not give a true picture of nonprofits' activities to stakeholders.

In annual reports, activity outcome information is generally included in non-

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financial information. It is difficult to quantify the value of these activities. Therefore vague descriptions remain in practice. However, stakeholders expect to know the general 'social value' created, through quantitative measures evaluating achievements and accomplishments. This paper discusses the 'social accounting' measurement method advanced via traditional financial accounting which converts 'social value' into a monetary form.

2. Historical background of social value measurement

Financial accounting records revenue and expense created by organization, either in the present or future. 'Social accounting' as referred to above, deviates from ordinary accounting in the following ways: (1) it is not limited to a particular organization but rather targets the welfare of the whole society, and (2) social benefits and costs outreach monetary revenue and expense.

Commercial and nonprofit organizations have risen to the challenge of measuring social value for around fifty years. During this time environmental accounting has, to some extent, become accepted practice within traditional accounting operations. Before examining a social accounting case study, we review the historical background of social value measures.

2.1. Commercial enterprise socially-related accounting

Traditional financial accounting mainly targets profit-making enterprises, aiming to calculate the profit or loss for owners and/or shareholders. The concept of 'socially-related accounting', including environmental accounting, originated in the mid-1960s accompanying the expansion of corporate activities into areas significantly affecting society and environment. By the mid-1970s 'social accounting' theory and practice had spread, and the concept of public and social accountability, based upon a social contract, was applying to practice.

In the late 1960s some social accounting systems were established by Estes, Abt, and Linowes (Blake et al., 1976; Gray et al., 1987; Gray et al., 1996). This responded to explorations of corporate social responsibility, concerning pollution and product liability issues. The social accounting method aims to clearly identify social benefits and costs, converting external economies and diseconomies (for example, health, safety, vocational training, and environmental pollution) into a monetary basis. Social accounting also extends traditional accounting from calculating profit distribution to recognizing social value.

In the 1970s Abt, Estes, and Seidler tried to add external economies and disec-

onomies into financial statements. This severely challenged traditional accounting. During the mid-1970s, social accounting practices generally diminished, as interest in corporate social responsibility declined as an increasingly severe depression took hold. Furthermore, social accounting had not overcome a number of issues including information capture and practical costs involved with calculating social value.

It should be noted that many companies disclose socially related information in corporate social responsibility (CSR) reports. This features descriptive rather than monetary information. Some efforts have been made by European firms to replace quantitative figures with monetary amounts, but this reporting remains a small proportion of overall corporate financial reporting.

2.2. Social impact evaluation of nonprofit organizations

Accounting for businesses aims to calculate distributable profit. Therefore the external economy, which does not contain an increase or decrease in net assets, has no relevant meaning, and a combination of financial accounting and measuring social value is unsuccessful. However, nonprofit organizations actively try to create social value. Therefore information concerning social value confirms and highlights the *raison d'être* of the organization.

In the 1990s, European nonprofit organizations, in particular, attempted measuring social impact through triple bottom line reporting of social, economic, and environmental activities and outcomes (Gonella et al., 1998). However, this approach remained merely a supplement to financial statements (Richmond et al., 2003). In the early twenty-first century however, social value measurement techniques had a breakthrough on the American West coast.

Social Return on Investment (SROI), invented by Roberts Enterprise Development Fund (REDF), measures and evaluates social value monetarily. It was developed in the late 1990s, focusing on social enterprises of the San Francisco Bay Area. According to the REDF, SROI measures the return on investment by calculating blended value, which is the sum of enterprise and social purpose value, as shown in the following formula (Roberts Enterprise Development Fund, 2001):

$$\text{Blended value} = \text{Enterprise value} + \text{Social purpose value}^1 - \text{Long-term debt}$$

1) A social purpose value is measured, for example through the reduced expenditure of government and increased income of beneficiaries.

Index of return = Blended value created in the future / Investment to date

From 2002, the New Economics Foundation in the United Kingdom committed to the practical use of SROI with the cooperation of REDEF. In 2005, SROI was adopted as an official framework of the SROI Network International (Lawlor et al., 2008). Additionally, from 2008 a joint research project, co-funded by the Office of the Third Sector within the United Kingdom's Cabinet Office and the Scottish Government, also adopted this framework to clarify and standardize social value measures (Office of the Third Sector, 2009). Furthermore, a Canadian research group proposed an expanded value-added statement incorporating volunteer value into financial statements while simultaneously applying SROI to nonprofit organizations working on vocational computer technology training (Quarter & Richmond, 2001; Quarter et al., 2002; Richmond et al., 2003; Mook et al., 2003).

3. Research method

As discussed, the development of social value measures have been undertaken intermittently and establishing a standard method has been difficult. Thus, measuring social value using the common SROI formula requires appropriate proxy variables to be selected considering each organization's situation.

As a practical case study, we investigate the 'Community Youth Bank Momo' (hereafter referred to as Momo). Momo is a nonprofit financial institution in Nagoya, Japan. Initially, Momo's trustees were interviewed about the youth bank's activities. We then examined a social accounting framework that visualizes social value in monetary terms.

3.1. Interview results

Momo is a nonprofit bank, established by young people, mainly in their 20s and 30s, in October 2005. It finances sustainable and environmentally-friendly foods and energy projects while promoting employment and human development. Momo aims to provide a sustainable community for future generations.

As of 21 October 2009, Momo had 352 funders and approximately 386,000 US dollars fund, with cumulative financing for 11 projects of 300,000 dollars towards its first four years work. Momo's financial capacity is small compared with ordinary financial institutions, such as commercial banks. Additionally, Momo's small scale makes it difficult to employ fulltime staff or rent offices.

Although Momo's business model is yet to be established, the board believes

Momo plays an important role in supplying funding for community activities. Commercial banks do not fund this type of community work or activity, therefore highlighting Momo's social significance. Momo promotes interchange between project funders and recipients. Projects are visited and toured by funding bodies while the funders also receive news and updates of project activities. This interaction has positive spin offs. Some funders have established voluntary connections with financed projects providing plans to remodel traditional houses for community use, or assuming interest payments on behalf of an organic farmer.

Many student volunteers and business people undertake some secretarial work. They write newsletters, and plan and manage tours to financed projects. Momo also hosts the Social Finance Research Group, where participants discuss new ways to fund community projects. Therefore Momo plays a prominent role in enlightening and developing human resources for citizens and volunteers.

Momo provides volunteer opportunities for about 30 young people. They are able to gain a range of skills and experiences including: enabling community action, addressing environmental issues, undertaking activities that existing commercial banks do not, and launching community organizations with links to Momo's activities. Each volunteer assumes responsibility and manages the work they do. The funding available through Momo is very small compared with commercial banks. Therefore the trustees are concerned that Momo's performance is not understood by citizens, governments, and businesses. The board believes social accounting more clearly communicates Momo's achievements, in monetary terms, to stakeholders.

3.2. Social accounting framework

Nonprofit organizations do not necessarily seek business revenues, rather they pursue social benefits. Traditional financial accounting is therefore insufficient for measuring social good. Including social value in financial statements may assist an organization to clearly indicate its aims and achievements and thus increase its public appeal.

Value-added statement presented by Canadian research group is unfamiliar as financial statement in Japan so we created a 'social value statement'. This statement is based on the reported revenue and expense statement and supplemented with social costs and benefits. Social value statement is not traditional accounting practice, therefore this paper includes an experimental case study. Social value statement significantly expands the accountability of organizations, extending reporting from solely monetary aspects to presenting the social impact of activi-

ties.

Quarter et al. (2002) indicate the following three features of nonprofit organizations: (1) “they operate for purposes other than earning a profit”, (2) “their efficiency and effectiveness cannot be determined by means of income measures”, (3) “they may receive large amounts of resources from donors who do not expect monetary benefits in return”. Quarter et al. (2002) also highlight that social accounting is “a systematic analysis of the effects of an organization on its communities of interest or stakeholders, with stakeholder input as part of the data that are analyzed for the accounting statement”. That is, nonprofits’ expenses include labor and travel costs, and a variety of social resources that do not appear in financial records. These include volunteer labor, expenses paid by volunteers, imputed rent and exempted payments for water, electricity and heating.

Nonprofit organizations often provide free or low cost services for the socially vulnerable. Further, their services often enhance community education and assist general social cohesion. Thus, to make a social value statement, the revenue and expense statement requires additional information.

Table 1 shows the structure of our suggested social value statement. ‘Total social input’ includes ‘actual expense’ and ‘social cost’ without disbursement. Actual expenses include labor costs, taxes and dues (value-added and generated within the organization), external procurement costs and depreciation (attributable outside of the organization). Social costs include volunteer labor, other non-monetary costs, and estimated education costs.

‘Total social outcome’ consists of ‘actual revenue’ and ‘social benefit’ without earnings. In this case, if a market price is obtained as a unit price of social benefit, the social benefit can be calculated using the relevant price. If market price is unavailable, the equivalent volunteer input costs could be used as an

Table 1: Structure of Social Value Statement

	Total social input		Total social outcome	
Statement of revenue and expense (ordinary financial statement)	Actual expense	Labor cost Taxes and dues External procurement Depreciation	Actual revenue	Local community Members and clients Government Organization itself
Social value statement (additional social information)	Social cost	Volunteers Non-monetary cost Education and enlightenment	Social benefit	Local community Members and clients Government Organization itself
		Social surplus		

approximate benefit amount.

Subsequently, ‘total social outcome’ is re-aggregated to the local community, members and clients, the government, and the nonprofit organization. If membership fees or charitable giving is allocated to projects, the results are attributable to clients or the local community whereas if fees or giving is allocated to administrative costs, the results are attributable to the organization itself. Generally, project revenue is attributable to members or clients, but results from government commissioning are sometimes attributed to the local community or government. Subsidy attribution varies depending on the purpose and use of the funds. Therefore, by focusing on the organization’s mission the social value statement should express which stakeholders should be attributed for each achievement.

3.3. Creating the social value statement

To convert the statement of revenue and expense, based on traditional financial accounting, into the social value statement, including social benefits and social costs, requires the following five steps: (1) clarify the organization’s activities, (2) measure the social benefits of free or low cost services, (3) calculate an equivalent for volunteer costs, (4) understand in-kind donations or benefits received without payment, and (5) estimate education costs. **Table 2** indicates the methods used to measure social benefits and costs.

Table 2: Calculation Methods to Measure Social Benefits and Costs

Benefit and cost		Example	Calculation method
Social benefit	Free or low cost services	Welfare support for necessitous or disabled persons, job training for unemployment	Market price of similar services Public budget reduced as a consequence of the project
		Environmental preservation activity	Restoration cost Avoidance cost
Social cost	Equivalent for volunteer costs	Board meetings, project planning, administration, and miscellaneous duties	Opportunity cost Replacement cost
	In-kind donations and benefits received without payment	In-kind donations, low-charged office and utility, and travel or communication expenses incurred by volunteers	Replacement cost Surrogate value
	Estimated education costs	Skill-up of volunteers, enlightenment activities for citizens	Market price Labor costs equivalent

Step 1: Clarify the organization's activity

The social value of nonprofit organizations mainly comprises three activities. These are: (1) a direct benefit to their members or clients, (2) an indirect benefit to their members or clients, and (3) a benefit to the local community excluding their members or clients (Richmond et al., 2003). A preliminary step in establishing the social value statement is clarifying activity content and social value sources.

Three categories help establish which activities of the nonprofit organization include social value. These categories are 'social usefulness', 'citizen participation', and 'impossibility of substitute'. Social usefulness includes activities that meet the needs of society or activities that address social issues. Citizen participation includes accepting donations and volunteers, and enhancing public consciousness. Impossibility of substitution includes those activities or services that cannot be supplied by government or business.

Step 2: Measure the social benefit of free or low cost services

Following a clarification of the nonprofits' activities, it is necessary to measure the social benefit of activities from monetary perspective. Nonprofit organizations do not generally collect sufficient fees to cover their services. Although nonprofit organizations may provide free or low cost services, their social value is not necessarily inferior to services provided commercially. Thus, by applying the market price of similar commercially available services, the approximate social value can be feasibly measured.

If the activities of nonprofit organizations reduce social disadvantage or environmental destruction, public and social costs should reduce. In this situation the environmental or social costs can be estimated as social benefits generated by the nonprofit organization. These costs need to avoid or restrict social or environmental damage. For example, if farmland can be saved from deforestation by tree planting, future restoration costs can be saved. Therefore the relevant effects are considered a social benefit. Moreover, some future agricultural products produced on the preserved farmland could be recognized as additional social benefits²⁾.

Step 3: Calculate an equivalent for volunteer costs

Some countries have introduced a rational and feasible range of expenses to

2) Future agricultural goods are primarily attributed to producers. However, Richmond et al. (2003) mention the social value of an organization providing job training. This value may include the annual starting salaries of beneficiaries gaining jobs following training.

account for volunteer costs. The American Financial Accounting Standards Board (FASB) recognizes volunteer costs in two situations (Financial Accounting Standards Board, 1993). The first is when they create or enhance nonfinancial assets, and the second when specialized skills are required and these skills would typically need to be purchased if not donated³⁾.

Canada has introduced similar accounting for volunteer costs. A survey conducted by Mook et al. (2005), found that although 37% of nonprofit organizations prepare volunteer records, only 3% of the organizations account for volunteer costs in their financial statements.

The purpose of this paper is to disclose the social value, therefore the volunteer costs should not be limited as American and Canadian accounting standards. Generally, the equivalent for volunteer costs is calculated using opportunity or replacement cost (Quarter et al., 2002). Opportunity cost evaluates the amount a person could earn if not volunteering. However, potential earnings differ between volunteers depending upon their skills and experience. Replacement cost evaluates expenses using a labor market wage if a volunteer is replaced by a paid worker. The difficulty can be that appropriate labor market wages may not be found for particular nonprofit activities.

Establishing appropriate volunteer costs is difficult. Brown (1999) highlights volunteer productivity can be lower than paid staff because of different incentives. Yet volunteers are also potentially more motivated because they often have higher education levels and social awareness. Additionally, paid workers in Japanese nonprofit organizations receive very low wages compared with those in commercial firms, therefore a wage adjustment should be considered.

Step 4: Understand in-kind donations and benefits received without payment

Nonprofit organizations sometimes receive in-kind donations, office rent, and utility cost exemptions. Trustees and staff also incur travel, communication, and other expenses that they pay themselves on behalf of the organization. The full activity costs are calculated by applying replacement costs or surrogate value in the social value statement. The surrogate value is the cost of similar goods and services when replacement costs cannot be established. For example, there is an established method to estimate the value of office rent when an organization has low rent.

3) Specialized skills include accountants, architects, carpenters, doctors, electricians, lawyers, nurses, plumbers, teachers, other professionals, and craftsmen.

Baba (2007) indicates Japanese nonprofit organizations often have few indirect costs. These costs include office related expenses, planning and meeting costs, and technical fees. To fully evaluate the true cost of nonprofit activity, these hidden costs need to be exposed in the social value statement.

Step 5: Estimate education costs

A key role of nonprofit organizations is the education of society generally. This is sometimes provided directly through seminar or training. Often the most meaningful way people are educated is through participation in nonprofit organization activities.

In commercial firms, education is generally recognized as a labor cost. This includes time spent training employees and external lecturers fees. Education within nonprofit organizations has a wider focus. Nonprofits aim to educate staff, volunteers, donors, members, and clients, but these costs are often not actualized. Thus, education costs should be identified in the social value statement.

It is rational to use the market price of existing educational services within the social value measures. For example, Quarter et al. (2002) show the average cost of a community college course for personal growth and development is available as a surrogate value. However, it is difficult to find equivalent market prices in Japan, so labor cost equivalents are used to estimate the social value of education.

4. Case study

Using the five steps for social accounting discussed in the previous section, we create the social value statement. To measure the social value generated by Momo, we conducted some additional interviews with trustees, members, and volunteers. We also sent questionnaires to all Momo volunteers⁴⁾.

4.1. Measurement of social value

Social accounting is feasible for Momo and its activities because it has the following features: (1) funding for civil activities which have society wide effects, (2) a broad range of stakeholders including many small funders, (3) education activities influence a wide variety of people and includes the promotion of socially

4) In this questionnaire, we asked about the amount of time spent volunteering for Momo, the activities undertaken, expenses incurred on behalf of the organization along with any skills obtained. The questionnaire related to activities from June to November 2008.

responsible activities and environmental issues, (4) volunteers include financial professions, company employees, and university students, (5) training opportunities are provided for volunteers.

Steps 1 & 2: Clarify and measure social benefit

Table 3 provides a brief summary of Momo's activities. Momo's most important activity is making available low interest credit to civil activities. This function makes loans available for civil activities from funds raised extensively from local citizens.

Momo applies 2% interest (a general loan) or 2.5% interest (a bridge loan) to its loans. Japanese law regards any loan with interest above 7.5% as a loan from a for-profit institution. Therefore using an interest rate of 7.5% we estimate the market value of loan interest to be 1,267 US dollars. A deduction of actually received interest, recognized on Momo's statement of revenue and expense, of 359 dollars is made. Finally, we add 908 dollars of 'unrecognized social value' to the social value statement.

Groups and individuals receiving Momo's finance produce significant positive results for the local community, yet there is no adequate market price to measure these effects. Some proportion of the revenue generated from the loans is tangible, but it is somewhat inaccurate. Therefore, on the outcome side of the credit committee it is difficult to measure social benefit, so we use the volunteer cost equivalent of 12,578 dollars as the social benefit from the input side.

Table 3: Activities of Community Youth Bank Momo

Activity	Primary beneficiary	Measurement of social benefit
Low interest credit: Makes loans for civil activities by raising funds extensively from citizens.	Community	Loan interest: Market rate Credit accommodation: Volunteer costs equivalent
Newsletter: Informs local activities and social finance to citizens.	Community	Volunteer costs equivalent
Event: Raises participants' skills and deepen their understanding about local activities and social finance.	Members and clients	Market price or volunteer costs equivalent
Publicity: Provides information about Momo's activities and financed projects through website and blog.	Momo	Volunteer costs equivalent
Administration: Manages and maintenances Momo's operation.	Momo	Volunteer costs equivalent

Momo also publishes newsletters and provides information to the wider local community through its website and blogs. These activities enhance community cohesion. The social benefit from promotion and community education is difficult to ascertain. Instead we use volunteer inputs of 1,777 dollars as the social benefit.

The social benefit of the Social Finance Study Group held at Momo is comparatively measurable. In this study group financial professions and researchers provide the latest information concerning social finance. We estimate the benefit of these classes using the market example of university seminars. The Momo's study classes are estimated to cost 60 dollars, per three hour lecture, per person. The social benefit for 30 participants is therefore 1,800 dollars. Following a deduction of 65 dollars for fees received from participants, we add an 'unrecognized social value' of 1,735 dollars to the social value statement with equivalent volunteer costs of 712 dollars⁵).

Many volunteers participate in Momo's operational affairs including board meetings, accounting and other general administration. These activities are essential for the continuing operation of Momo, so the social benefit is measured using the equivalent volunteer cost.

Steps 3 & 4: Volunteer cost equivalent and in-kind donations

To calculate the equivalent for volunteer costs, a survey of all Momo's 30 volunteers was conducted⁶). **Figure 1** shows the questionnaire. The survey aims to rationally estimate the broad effects of volunteers rather than strictly calculating market value. Equivalent volunteer hours and costs, sorted by position and duty, are shown in **Table 4**. Volunteer hours totaled 1,717 during the half year examined. Equivalent volunteer costs were approximately 32,860 dollars.

Among them we used equivalent volunteer costs of 12,578 dollars (low interest credit), 1,777 dollars (newsletter), 4,961 dollars (subsidized human development program), and 10,500 dollars (publicity and administration) as the proxy of social benefits. And also the expenses incurred by Momo's volunteers amounted to 2,886 dollars. It is considered as a kind of giving revenue.

Coincide with above social benefits, the equivalent volunteer costs of 32,860 and the expenses incurred by volunteers of 2,886 are also used as social costs.

5) Briefing session of volunteers (144 dollars) and exhibition of booths (568 dollars). Volunteer cost of social finance study group is eliminated because it is reflected by the market value.

6) The volunteers include seven advisors, seven trustees, three professionals, nine working people, and four students. The advisors' role is to provide counsel for the credit administration committee.

Questionnaire sheet for volunteers	
1. Name: <u>xxx xxx</u>	
2. Job carrier and skill: Company director / Company employee / Professional () / NPO representative / NPO staff / (Student) the others ()	
3. Hours and duties of volunteering (e.g. project activities, planning and operation of events, office work, meeting)	
Contents of volunteer (in detail as much as possible)	hours
Office work	60 hours
Planning and operation of events	36 hours
Meetings	30 hours
Guidance for visitors	9 hours
Writing newsletter	18 hours
	hours
4. Expenses incurred by yourself (e.g. travel, petroleum, communication, supplies)	
Contents of expenses (in detail as much as possible)	Amount of money
Railroad fare	89 dollars
Telephone	80 dollars
	dollars
5. Education, training, and skill-up (e.g. ability development, planning skill, specialized qualification, job-hunting)	
Experiences and skills acquired through volunteering (in detail as much as possible)	
<ul style="list-style-type: none"> -- Computer skills: Ability to create documents with writing techniques to attract readers was developed through making blogs and newsletters. -- Business manners: Way of thinking and personal network was expanded through communicating with the other volunteers, funders, and borrowers. Communication skills with strangers and persons who have various statuses were improved due to the opportunities to speak in public. -- Ability to plan events: Arrangement power to make plans was acquired by considering what to do, by when, and who are responsible. -- Facilitation ability: Skills to manage meeting were developed by playing a role of facilitator and also used in my primary business. -- Altruistic spirit: Public morality has been grown by knowing issues in community, and many young colleagues expecting to make good use of money were acquainted with. -- Job-hunting: Job in a financing company was obtained by appealing the experiences of office administration and conference facilitation. 	
Note: "5. Education, training, and skill-up" shows summary of answers from all respondents, not from one single person.	

Figure 1: Questionnaire Sheet for Volunteers

They are re-classified into appropriate expense items.

Step 5: Estimate education cost

One of Momo's significant missions is the education of young people interested in community activities. Therefore Momo intentionally entrusts some operations and events to student volunteers. The volunteer hours of students are therefore

counted as an education and training cost in the social value statement. Students' equivalent volunteer cost of 2,006 dollars is simultaneously used as social benefit and social cost.

4.2. Social value statement

To create the social value statement, the following three steps are required, as shown in **Figure 2**: (1) reconcile the 'statement of revenue and expense' column, sorted by beneficiaries, (2) transcribe the social benefits of the 'unrecognized social value' column and (3) transcribe the social costs of the 'unrecognized social

Unit: US dollar

	A	B	A+B
	Statement of revenue and expense	Unrecognized social value	Social value statement
Social Benefit			
1. Community Activities			
(1) Low Interest Credit			
Loan interest	359	908	1,267
Credit administration committee	150	12,578	12,728
Newsletter membership	1,415	1,777	3,192
2. Programs for Member and Client			
(1) Seminar program	65	2,447	2,512
(2) Subsidized human development	5,775	4,961	10,736
(3) Student training	0	2,006	2,006
3. Supports for the Momo's Operation			
(1) Giving	3,101	2,886	5,987
(2) Publicity and general affairs	0	10,500	10,500
(3) Goods sales	760	0	760
(4) Other miscellaneous duties	882	0	882
Total Social Outcome	12,507	38,063	50,570
Social Cost			
1. Credit project cost			
(1) Labor cost	0	12,578	12,578
(2) Travel cost	431	1,421	1,852
(3) Other cost	48	0	48
2. Other project cost			
(1) Labor cost	0	1,038	1,038
(2) Newsletter staff cost	0	1,777	1,777
(3) Subcontract cost	1,138	0	1,138
(4) Sales cost	569	0	569
(5) Other cost	42	0	42
3. Subsidized project cost			
(1) Labor cost	1,000	4,961	5,961
(2) Travel cost	1,059	0	1,059
(3) Other cost	677	0	677
4. Administrative cost			
(1) Labor cost	0	9,162	9,162
(2) Publicity cost	0	1,338	1,338
(3) Travel cost	0	911	911
(4) Communication cost	889	454	1,343
(5) Supplies cost	275	100	375
(6) Rental cost	2,100	0	2,100
(7) Training cost	100	2,006	2,106
(8) Other cost	362	0	362
Total Social Input	8,690	35,746	44,436
Social Surplus	3,817	2,317	6,134

Figure 2: Steps to Create Social Value Statement

value' column.

The sum of the 'statement of revenue and expense' and 'unrecognized social value' is then consistent with the 'social value statement'. This results in stakeholders being able to fully understand how social value is generated from monetary or nonmonetary activities.

4.3. Usefulness of social accounting

As Table 5 indicates, the social value statement leads to changes in stakeholder awareness and thinking. This change of attitude affects funders, donors, trustees, staff, and volunteers. Further, the statement also assists the organization revisit its own behaviors.

The social value statement is useful for funders and donors, to more fully understand the multifaceted gains made thanks to their funding. For example, when funders and donors note revenue is 12,507 dollars, and social value is 50,570 dollars, they are likely to understand that Momo produces social value four times that of the revenue received. Highlighting this positive result may lead to additional funding and contributions.

The social value statement confirms for trustees and staff that their activities possess social meaning, not self-satisfaction. This could potentially deepen their commitment to Momo's activities and services.

For volunteers the social value statement can be a tool to assess their role. Haski-Leventhal et al. (2011) indicate the significance of multidimensional evaluations for volunteers. Although a nonprofit organization may not be able to compensate volunteers' work financially, it can show its appreciation by accounting for their contribution on a monetary basis. Indeed, some young volunteers mentioned their self-confidence and attitude towards Momo's activities grew

Table 5: Usefulness of Social Accounting for Stakeholders

Stakeholders	Usefulness of social accounting	Effects on behavior
Funders and donors	Grasping the multiplied effect generated from funding visibly	Additional funding to the organization
Trustees and staffs	Confirming the activities' social meanings	Improving commitment to the activities
Volunteers	Showing appreciation by accounting the contribution in monetary basis	Advancing self-confidence and positive attitude
Organization itself	Clarifying input resources and beneficiaries of each program	Redefining the organization's mission

positively, or their jobs improved, through the questionnaire process.

Finally, for the organization itself, the social value statement clarifies and confirms that volunteers are vital to sustain the organization's activities and services. This volunteer validation leads to modifications in management policy. The statement also redefines the organization's mission by clearly establishing the beneficiaries of each program.

5. Social impact index

The social value statement is not for public disclosure, so revisions are necessary for future practical use. The critical issue is the precise measurement of social value. Rational and comparable social value information is essential so nonprofit organizations can negotiate with government or commercial enterprises on an equal footing. Therefore we argue for the refinement of financial indices used by commercial enterprises. This would also enable the development of quantitative indices to evaluate social impacts for nonprofit organizations.

Currently, social businesses are increasingly gaining attention. Some European countries are discussing the assessment of social projects' outcomes. By referencing these studies' findings, we examine the 'social impact index' to evaluate the invisible social value of nonprofit organizations.

5.1. Defining criteria for social enterprises

According to Defourny & Nyssens (2006), research on social enterprises began in 1993 at The Social Enterprise Initiative at Harvard Business School. Dees (1998) characterizes social enterprises as hybrids of the social and economic spectrum, operating between being 'purely philanthropic' and 'purely commercial'. Borzaga & Defourny (2001) published a report derived from research on Italian cooperatives. It was based on investigations of 15 European Union member countries and executed by the EMES European Research Network. The definition of social enterprise proposed by EMES is used as a guideline for many social enterprise studies (Heckl et al., 2007).

EMES provides nine social enterprise criteria, of which four are economic and five are social. The economic criteria are: (1) "a continuous activity producing goods and/or selling services", (2) "a high degree of autonomy", (3) "a significant level of economic risk", (4) "a minimum amount of paid work". The five social criteria are: (5) "an explicit aim to benefit the community", (6) "an initiative launched by a group of citizens", (7) "a decision-making power not based on

Table 6: Social Impact Index

Social impact index	Measurement target	Description	Formula	Result (Unit: US dollar)	EMES criteria
Project revenue ratio	Financial autonomy	Percent of autonomous revenue sources by total revenues	Project revenues/Total revenues	4.6 % =(359+150+65)/12,507	(1)(2)
Revenue concentration index	Revenue diversification	Concentration or diversification of revenue resources	$\Sigma(r_i/R)^2$ (r: Individual revenues such as giving, membership, project, subsidy, and other, R: Total revenues)	0.31 point =(3,101/12,507)^2 +(1,415/12,507)^2 +(5,775/12,507)^2 +(1,642/12,507)^2	(2)(3)
Margin ratio	Surplus funds securement	Percent of margin by total revenues	Annual margin/Total revenues	30.5 % =3,817/12,507	(1)(2)(3)
Financial recoverable rate of social benefits	Financial collectability	Percent of revenues monetarily recovered by generated social outcome	Total revenues/Total social outcomes	24.7 % =12,507/50,570	(1)(4)
Project input ratio	Mission compatibility	Percent of input resources including volunteers used for project activities	(Project costs + Social costs used for project)/Total social input	60.2 % =(4,964+21,775)/44,436	(5)
Social cost-benefit effectiveness	Social efficiency	Multiplier effect of generated social outcome to input resources including volunteers	Total social outcome/Total social input	1.14 times =50,570/44,436	(5)
Community contribution ratio	Community usefulness	Percent of activities produced for society and community	(Revenues and social benefits generated from community activities)/Total social outcome	34.0 % =(1,924+15,263)/50,570	(5)
Social support revenue ratio	Community penetrance	Percent of revenues funded from local residents and philanthropy	Revenues of giving, membership and subsidy/Total revenues	82.3 % =(3,101+1,415+5,775)/12,507	(5)(8)
Volunteer leverage effect of human resources	Volunteer utilization	Multiplier effect of volunteer labor to salaried human resources	(Labor expenses + Volunteer costs equivalent)/Labor expenses	33.9 times =(1,000+32,860)/1,000	(4)(8)
Volunteer leverage effect of total resources		Multiplier effect of volunteer labor to total input resources	Total social input/Total expenses	5.1 times =44,436/8,690	

EMES criteria: (1) a continuous activity producing goods and/or selling services, (2) a high degree of autonomy, (3) a significant level of economic risk, (4) a minimum amount of paid work, (5) an explicit aim to benefit the community, (8) a participatory nature, which involves the persons affected by the activity

capital ownership”, (8) “a participatory nature, which involves the persons affected by the activity”, and (9) “limited profit distribution” (Borzaga & Defourny, 2001).

As yet a method to evaluate the social impact of nonprofit organizations is not established. Thus, we discuss the social impact index using the economic and social criteria established by the EMES European Research Network. We exclude three of the nine EMES criteria because they are regulated by the law of Japanese nonprofit corporations. The excluded criteria are: (6) an initiative launched by a group of citizens, (7) a decision-making power not based on capital ownership, and (9) limited profit distribution. **Table 6** indicates the remaining six criteria which make up the social impact index.

5.2. Discussion

Despite the incomplete social impact index, discussions were held with some of Momo’s trustees and volunteers regarding the organization’s social value using the index. We also examined the utility of the index. The social impact index has considerable limitations and implications for its practical use, these implications are discussed below.

Generally, project revenues represent an autonomous and relatively stable financial resource. The nonprofit organization is free to use these funds to action their stated mission. In the Momo case, the project revenue ratio is just 4.6%, indicating the organization faces significant issues regarding receipt of autonomous revenue.

However, when using the revenue concentration index⁷⁾, Momo’s financial resources are relatively diversified, and the margin ratio is high. As a result, Momo’s financial viability is not immediately threatened.

When examining social aspects the financial recoverable rate of social benefits are 24.7%. This indicates a quarter of social benefits are monetarily financed. Additionally, the project input ratio is 60.2%. This indicates that major resources are invested in projects realizing Momo’s missions. However, the social cost-benefit effectiveness (a similar notion to SROI) is only 1.14 times. It means 1 unit of social input generates 1.14 times social outcome. This results from the inability to measure appropriate market value for the program providing low interest credit to civil activities.

7) This index applies the Herfindahl-Hirschman index. It represents a concentration or diversification of financial resources. The higher the index, the more concentrated financial resources become, while the lower the index, the more diversified the resources are.

Community contributions ratio is 34.0%. This means the major portion of Momo's activities contributes to community. In contrast, a high percentage of Momo's financial resource comes from philanthropy, including citizens' donations, membership, subsidies and grants. This social support revenue ratio is 82.3% of Momo's total revenues.

Finally, the volunteer leverage effect represents the human or total resources multiplied by volunteer participation⁸⁾. Referring to Momo's social value statement, the volunteer labors generate 33.9 times input of labor expenses, while generate 5.1 times input of total expenses. Thus, volunteer participation is crucial in maintaining Momo's activities.

6. Conclusion

Traditional accounting's statement of revenue and expense achieves narrow accountability to show financial expenditure. The application of social accounting methods establishes the social value statement. This extends public accountability and enables organizations' 'invisible' community contributions to be verified.

However, while stakeholders familiar with the organization may empathize and understand the meaning of the social value statement, it is difficult to use the social value statement for public disclosure. It is particularly difficult to establish rational market prices to estimate free or low cost services. This is a significant disincentive for nonprofit organizations to use the social value statement.

In the case of the Community Youth Bank Momo, appropriate market prices for low interest credit provision services and its educational effects could not be obtained. A credible and appropriate measure remains undeveloped.

Indeed, it is difficult to establish a standard social accounting method because the activities of nonprofit organizations are diverse in the range of activities and the type volunteers (Cnaan et al., 1996). A 'social audit' may be also required. This provides an objective and rational check, and assurance on social value information exercised by an authorized third party (Blake et al., 1976; Gray et al., 1987; Gray et al., 1996). Multifaceted challenges require persuasive social value statements for nonprofit organizations.

8) Generally, 'leverage' is to multiply financial gains or losses using debt. We apply this concept to volunteers, as a multiplier of input resources available to nonprofit organizations.

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