

An Analysis of the Senior Employment Programs for Wellness in Changwon City based on Blended Return On Investment

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Abstract: *The purpose of this study is to evaluate the economic and social impact of the SEP in which the elderly participate by using the blended return on investment (BROI), economic return on investment (EROI), and social return on investment (SROI) research methods. And the sustainable conditions of SEP were confirmed. This study was conducted with one market-type SEP approved by the Korea Elderly Labor Force Development Institute (KLFDI), one preliminary social enterprise approved by Changwon City Hall, and one market-type SEP operated by a social welfare center for the elderly. As a result of the study, it was found that EROI, SROI, and BROI were the highest in the SEP of preliminary social enterprises operated by subsidies in Changwon. However, the difference between EROI and SROI was greatest in the market-type SEP operated by the elderly social welfare center. There was a big difference between economic and social impacts. The social influence of the elderly was evaluated to be higher than the income of the elderly.*

Keywords: Senior Employment Programs (SEPs); Blended Return On Investment (BROI); Economic Return on Investment (EROI); Social Return on Investment (SROI)

1. Introduction

Korea started SEP in 2004, and it has been over 20 years this year. Nevertheless, sustainability is an important issue in the relationship between the affluent lives of older people and government subsidies. Although the purpose of SEP is to provide a small income by providing jobs, this program alone is not yet sufficient support. On the other hand, the choice of employment or self-reliance in market-oriented companies is gradually expanding without an agreement on self-reliance with the employed elderly. It is also true that efforts are being made to create jobs for the elderly with this content.

Although SEP has received positive reviews, there is no evaluation method that can properly evaluate its sustainability or socio-economic impact. In fact, an objective evaluation is difficult. As a result, they do not receive subsidies, reduce staff, or do SEPs on their own.

This study confirmed the social and economic impact of SEP through the evaluation of REF (Robert Enterprise Development Fund) and NEF (New Economic Foundation). By comparing the socioeconomic return on investment (SROI, EROI, BROI) for the three SEPs, the impact of elderly employment as a social safety net for the elderly was evaluated.

2. Senior Employment Programs of Senior Welfare Center [1]

2.1 Senior Employment Programs (SEPs)

The SEP of this study is operated by the following organizations, namely:

- The government
- The local government
- Non-profit organizations

This study investigated the following three elderly occupations employed by three organizations operating SEP.

- a. A preliminary social enterprise that assembles products for the supply of local SMEs supported by Changwon City
- b. Senior Welfare Center Cafe Barista
- c. Market-type courier company receiving state subsidy

2.2 Returns on Investment

BROI is to look at both the economic and social aspects of the return on investment. SROI is a method of measuring the resources invested and the finances associated with those resources. Following the Calculation, Principle is useful because it allows you to identify stakeholder risk and suggest several ways to change its performance after investing in resources and finances. In addition, since the principles of the methodology are standardized, it can contribute to the evaluation and management of the impact of projects, businesses, organizations, and policies of for-profit and non-profit enterprises.

Most importantly, the resulting identified impact accounts for stakeholders. This includes not the only financial performance that can be confirmed in numbers but also social values that cannot be confirmed in various surveys. It is carried out so that stakeholders' opinions are deliberately reflected in resource allocation decisions. SROI is a case study explaining the change in return on investment. That is, it includes qualitative, quantitative, and financial information. It explains changes in socio-economic return on investment and helps to understand them by expressing them numerically. So SROI sometimes aids decision-making and sometimes affects nonprofit sponsors. The concept of SROI was developed from social accounting and cost-benefit analysis approaches and is based on seven principles for measurement. This is summarized as follows:

- i. Stakeholders should be involved. Through our stakeholders, we need to be informed about what we measure, how we perform, and what we evaluate.
- ii. You need to check if there are any changes. Change can be positive or negative, intentional or unintentional. Evaluate on the basis of evidence and clearly state the reasons.
- iii. You need to set values for your priorities. Those responsible for revenue should also recognize the value of priorities. However, communication is important, as not all results can be evaluated well.
- iv. You have to focus on what you need the most. In particular, we focus on the outcomes that stakeholders want to check for social impact.
- v. Do not overstate the opinion of the researcher, and proceed only based on the vision or values of the existing institution or organization.
- vi. All processes should be transparent. You should discuss with stakeholders on what basis you are analyzing, accurately substantiating, and reporting to the organization.
- vii. It should be verified that the results are appropriate and have an independent interpretation each.

The SROI methodology was first proposed in 2000 and applied to the Roberts Enterprise Development Fund [2]. Afterward, it was used for cost-benefit analysis of charitable funds operated for social benefit.

The SROI methodology was developed to enable the sustainable development of organizations and institutions and to enable the advancement of social accounting for social impact. This has been accelerated by a growing awareness of the importance of managing impact areas not covered by traditional P&L accounting. Similarly, content through methods focuses on outcomes. The SROI method is based on the logic of cost-benefit analysis, but it identifies possible social impacts. In particular, it is a great feature in that it is designed to support the practical decision-making of the managers and sponsors of institutions and institutions with great interest from both perspectives. Cost-benefit analysis is an evaluation method based on social science and is most often used by sponsors and sponsors outside the organization to determine whether an investment or subsidy is economically effective [3].

In financial management, the concept of ROI has one meaning. But SROI is not about a single ratio, it's about how you report on value creation. Evaluate values based in part on the social experiences of stakeholders,

find and explain indicators of content change through stakeholders, and use socioeconomic values as such indicators. This can be said to be a new organizational management method [9-11].

As a basic premise, the source of profit assumes that costs such as subsidies represent value. However, although this cost may represent an exchange value, this exchange value does not fully appear to all who may be affected by the various channels of transmission in the intermediate distribution process. And this cost is partly in the distribution of workers' wages and operating funds [15]. The use of socio-economic value indicators offers several advantages:

- i. Integrate financial management systems and performance management systems.
- ii. Support communication with internal stakeholders.
- iii. Induce transparency in operation and clarify the vision of the organization or institution.
- iv. Sensitivity analysis through stakeholders is possible.
- v. It helps to isolate significant causes in value and performance management.

The concept of SROI was started to get an answer from the following question. “How can the Roberts Enterprise Development Fund (REDF) measure performance?” and “How can practitioners and investors know if they are meeting the goals they set in the first place?” “How can those organizations and institutions make such decisions about the use of their resources?”, “How can we prove that the money we sponsored or invested in our organizations and institutions is being used for the quantitative needs of individuals and society? ”

The concept of SROI quantifies the economic-social impact of socially active organizations and institutions. In addition, the value of social ventures is objectively shown by classifying them into corporate economic and social values [16,17]. In other words, the values of organizations and institutions are composed of the fundamental corporate values of organizations and institutions, social values, and liabilities. When each value is classified and quantified, Figure 1 shows where the various cost components fall.

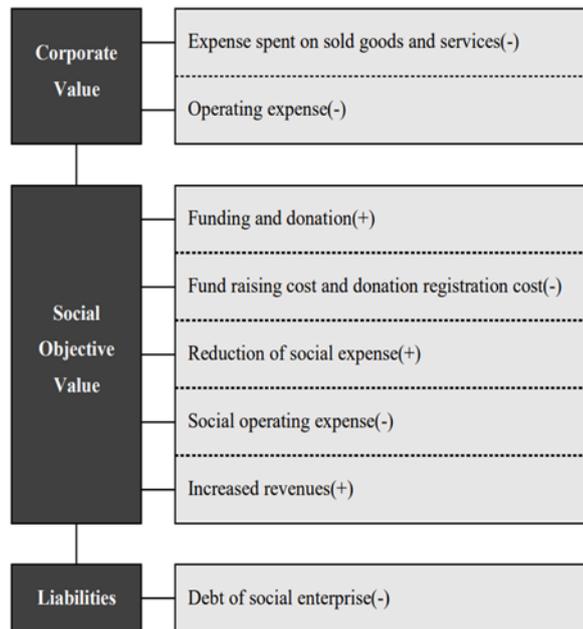


Figure 1. Components of values

Non-profit organizations and institutions are always in tension between profit and responsibility. The revenues and missions of non-profit organizations and institutions are associated with complex interests [16, 17]. You can consider how to measure the financial vulnerability of non-profit organizations and institutions, and you can use the components shown in Figure 2.

1	Equity balance	Asset minus liability, And it divided by total revenue
2	Revenue Concentration	
3	Administrative costs	Expenditure on administration divided by total expense
4	Operating margin	Total revenue minus total expense, and it divided by total revenue
5	Return on investment	Total income minus total expenditure, and it divided by net assets

Figure 2. Components for measuring the financial vulnerability of organizations and institutions

The Korean-style SROI method was used as a tool to measure the socio-economic performance of social enterprises by converting social values into economic indicators. It was developed by the KAIST Social Responsibility Management Center and published as <Guidelines for Evaluation of Value Creation of Social Enterprises> in 2009. It was developed as the need for a social valuation tool emerged. Based on this, the Korean SROI method was used as a model to measure the social performance of various Korean social enterprises. Various opinions were collected from the field and academia on the application of this method. For example, when evaluating Wonju Health Cooperative and Beautiful Store in Korea in business sectors representing potential sponsors and investors, the current method was insufficient to evaluate the importance of social entrepreneurship and the vision and social value of each institution. Therefore, it was necessary to prepare a tool to more systematically understand the essence of Korean social enterprises by applying various business performance measurement models [18].

In particular, there was an urgent need to develop a model that can be directly applied to Korean social enterprises that provide subsidies to continuously increase employment. Accordingly, it is necessary to objectify the data by disclosing the main information about Korean social enterprises. Based on it, social enterprise policies can be proposed and implemented. For the growth of social enterprises for continuous capital investment or self-reliance and for survival in a competitive market, it is very important to show indicators of economic-social value. Of course, for this purpose, specific measures such as disclosure of basic information of each organization and institution have been proposed [20, 21]. On the other hand, there are concerns about the possibility that the social model will remain an evaluation tool to promote policies rather than support social enterprises. Furthermore, it is necessary to develop an overall model to evaluate the health and sustainability of organizations and institutions.

In this study, three organizations operating SEP were investigated. The three organizations are preparatory social enterprises operated by subsidies from Changwon City, market-type delivery companies receiving subsidies from a government agency known as the Korea Senior Labor Institute (KORDI), and coffee shops operated by senior welfare centers. All the elderly working here were interviewed several times at each institution as stakeholders to communicate and determine important values and priorities of indicators for change. The analysis of each institution used the following formula. The values derived through the formula were compared and interpreted. Before calculation, the data on the balance sheet of each institution was checked, and then the figures were summarized through quantitative quantification. Interviews were conducted with stakeholders for sensitivity analysis. The formula is shown in Figure 3.

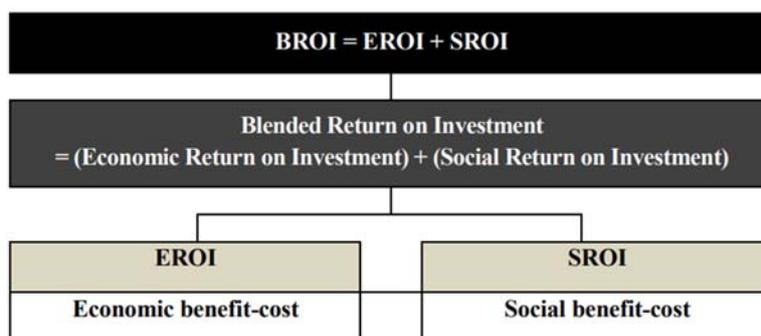


Figure 3. Formula and interpretation of BROI

3. Results

The basic assumptions for the analysis of the three institutions are:

- a. The performance period is 2 years
- b. Discount rate 3.5%
- c. The average inflation rate is 4.0% according to the Bank of Korea
- d. The level of significance ±20%

First, it results from a preliminary social enterprise related to assembly work, a labor employment project operated by receiving subsidies from Changwon City. Specific results for BROI, EROI, and SROI of this SEP are shown in Table 1 below.

Table 1. Results of the first case

ROL	Money(Unit: 10,000 won)	Score
Economic benefit	13,800	
Economic cost	8,000	
EROI		1.768
Social benefit	22,100	
Social cost	8,199	
SROI		10.715
BROI		12.483

Second, it is the result of coffee shops where elderly people work as baristas at senior welfare centers. The specific results of BROI, EROI, and SROI of this SEP are shown in Table 2 below.

Table 2. Results of the second case

ROL	Money(Unit: 10,000 won)	Score
Economic benefit	2,440	
Economic cost	2,290	
EROI		0.791
Social benefit	1,830	
Social cost	0	
SROI		9.926
BROI		10.717

Third, it is the result of a market-type courier company that is operated with subsidy support from the government agency, Korea Institute for the Development of the Elderly (KORDI). The specific results of BROI, EROI, and SROI of this SEP are shown in Table 2 below.

Table 3. Results of the third case

ROL	Money(Unit: 10,000 won)	Score
Economic benefit	943	
Economic cost	737	
	EROI	0.387
Social benefit	5,890	
Social cost	1,800	
	SROI	7.682
	BROI	8.069

It was found that EROI, SROI, and BROI were the highest in the SEP of preliminary social enterprises operated by subsidies in Changwon city.

However, the difference between EROI and SROI was greatest in the market-type SEP operated by the elderly social welfare center. There was a big difference between economic and social impacts. The social influence of the elderly was evaluated to be higher than the income of the elderly.

Sensitivity analysis was conducted on the SEP of preliminary social enterprises receiving subsidy support in Changwon City, which has the highest EROI, SROI, and BROI. Table 4 shows the indices and assumptions of the sensitivity analysis in this study.

Table 4. Assumption of sensitivity analysis

Impact indicators	The basic assumption
Participants	28 people
The average monthly salary	KRW 500,000
Income tax	15%

Table 5, Table 6, and Table 7 show the results of sensitivity analysis on the SEP of preliminary social enterprises receiving subsidies from Changwon City. The variables affecting the return on investment identified through stakeholders were the reduction of government subsidies and the increase in the average monthly income, that is, the real wage, of the elderly participating in SEP rather than the increase in income tax.

Table 5. Sensitivity analysis result :participants

The New Assumption	SROI	BROI
22people	7.533	9.301
34people	13.898	15.666

Table 6. Sensitivity analysis result :the average monthly salary

The New Assumption	SROI	BROI
KRW 400,000	7.746	9.514
KRW 600,000	13.687	15.455

Table 7. Sensitivity analysis result :income tax

The New Assumption	SROI	BROI
12%	11.102	12.87
18%	10.330	12.098

4. Discussion

This study seeks to evaluate the social and economic performance of the Senior Employment Program (SEP) through the SROI methodology. Blended Return on Investment (BROI), Economic Return on Investment (EROI), and Social Return on Investment (SROI) were calculated for the three senior programs. The results are compared to evaluate the sustainability of the SEP. Through the evaluation, it was possible to confirm the extent to which the lives of the employed elderly have social value and influence. In addition, support for institutions

or institutions that operate such employment projects for the elderly is very important for the social safety net of the elderly.

5. Conclusions

For this study, three organizations running the SEP are considered, which provided the following jobs:

- d. A preliminary social enterprise that assembles products for the supply of local SMEs supported by Changwon City
- e. Senior Welfare Center Cafe Barista
- a. Market-type courier company receiving state subsidy

The values derived through the equations of BROI, EROI, and SROI were compared and interpreted. Before calculation, the data on the balance sheet of each institution was checked and the figures were summarized through quantitative quantification. Interviews were conducted with stakeholders for sensitivity analysis. First, the EROI and SROI of SEP are high for all three institutions. This means that the elderly employment project is beneficial because of its social value and impact. Second, as a result of the sensitivity analysis, it was found that the variables affecting the return on investment identified through stakeholders were the reduction of government subsidies and the increase in the real wage, that is, the average monthly income of the elderly participating in SEP rather than the increase in income tax. Third, the number of elderly in need of SEP is increasing.

Therefore, if the BROI of an organization or institution that operates SEP is consistently high, it can be evaluated as effective. However, while the SEP of a prospective social enterprise or social enterprise may seem like a successful life for the elderly who have stable conditions and can support themselves, this is not the case for the elderly who need a social safety net. Further research is needed on a successful revenue-generating model of SEP, which can meet the needs of the elderly who cannot particularly support themselves.

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Conflicts of Interest: The authors declare no conflict of interest.

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