

## Article

# The Effect of Cash Incentive Projects on the Social Value Performances of Social Enterprises: An Empirical Analysis of SK's Social Progress Credit in Korea

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**Abstract:** Social enterprises seek to maximize benefits to society and the environment while obtaining profits. Social enterprises are increasing in number; however, their size and growth rates are very small. In addition, many social enterprises face difficulties in obtaining profits through social activities that generate social value, even though they are supported by government policy. Previous research has focused on the relationship between social performance and financial performance, compensation, and policy making, as well as the effect of incentives on social performance within organizations. To our knowledge, there is lack of empirical research on cash incentives for activities that generate social value. This paper analyzes the behavior of companies with regard to fostering a social enterprise ecosystem and a cash incentive system for social enterprises. In particular, we investigate the relationship between SK's cash incentive system, which is called social progress credit (SPC), and the activities of social enterprises, and we examine which social value activities are affected by a cash incentive system. Furthermore, through empirical analysis, this paper analyzes how the amount of cash for incentives is determined by specific social activities, such as social service performance, employment performance, environmental performance, and social ecosystem performance, as well as by the size of the social enterprise and its financial performance (i.e., revenue and net profit). The results show that employment performance is the most important factor for incentive payments, reflecting the social atmosphere and government policy in Korea, and that it can be a simpler measurement of performance than other social performance measures. Moreover, the results show that there is a significant positive (+) relationship between incentive payments and financial performance, such as sales and net profit of social enterprises. In addition, it was found that more incentives were paid to small social enterprises with higher sales growth.



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**Keywords:** CSV (creating shared value); financial performance; social progress credit (SPC); social enterprises; social value

## 1. Introduction

The social enterprise concept has recently become familiar to the public, and consumers consider social value when buying products [1,2]. From a sociological point of view, social value emphasizes norms such as justice, fairness, equality, participation, coexistence, solidarity, cooperation, and reciprocity. From an economic point of view, social value solves the problem of not enough resources being supplied for society due to market failure factors [1–3]. Firms engage in social value activities, such as charity, sponsorship, and donation activities, as well as CSR (corporate social responsibility) activities, to meet social needs [4,5]. Major companies in Korea have been engaged in various CSR activities since the 2000s and have recently expanded to CSV (creating shared value) when considering a company's strategy [6,7]. For example, SK in Korea devised a model to achieve social and economic performance at the same time and started supporting social enterprises in order

to generate social value. SK believes that social enterprises will solve social problems more effectively and that actions supporting the creation of an ecosystem of social enterprises will lead to higher social value creation compared with conventional CSR budget spending. SK has been attempting to monetize the social values of social enterprises by proposing social progress credit (SPC) since 2015. The number of social enterprises receiving incentives increased significantly from 2015 to 2019, and the virtuous cycle of social performances of the social enterprises also increased. SK measures the social values of its major affiliates, a first for Korea, and has also disclosed them since 2019.

Previous research on social performance has been focused on the relationship between corporate social performance and financial performance, compensation, and policy making, as well as the effect of incentives on social performance within organizations. Research on cash incentives for social enterprises is still lacking. A recent study on social performance incentives in Korea examined the effects of introducing incentive plans based on social performance in 186 samples of social-mission-oriented companies in South Korea [8]. It clearly showed that cash incentives positively affect social outcome creation; however, the determining factors regarding incentive amounts were not explained.

This paper aims to confirm the positive relationship between incentives and social performance and to seek to reveal a possible explanation for the amounts of incentives offered. In particular, financial performance, as well as social performance, is one of the major considerations for incentives for social ventures. This paper provides some practical advice to social enterprises who want to participate in the SPC program by showing which social performance factors are important. By analyzing the effect of social performance incentives on the financial performance of social enterprises, for policymakers, this paper proposes the possibility of application as a supplement to market failure that could revitalize the social capital market and promote the growth of the social enterprise ecosystem.

## 2. Literature Review

### 2.1. Characteristics and Types of Social Enterprises

It is a traditional view that only governments or public institutions (NPOs) can solve social problems. Social enterprises emphasize social values and solve social problems in the market. In Korea, many social enterprises are supported by the government, such as by related funds or price premiums [9]. It can be said that social enterprises operate with the dual values of seeking to solve social problems while generating profits through innovative technologies or business models in the market. These dual values cause conflict with other constituent entities in the market.

Many previous studies have shown that social enterprises have a wide range of stakeholders that can infringe on the interests of other groups to satisfy a particular group [10]; that is, social enterprises may have to sacrifice financial and economic performance to achieve social goals. In addition, social-value-generating activities often involve additional cost burdens, with most of them not being compensated for by market price mechanisms. For example, social enterprises employing disabled people clearly increase welfare, but the cost of productivity losses is not compensated for by the market price. Therefore, it is difficult for social enterprises to make sufficient profits to recover capital costs [11,12].

The types of social enterprises differ from country to country because the types, sizes, and social problems vary from country to country. In Korea, social enterprises officially emerged through the government's Social Enterprises Promotion Act in 2007, which enabled social enterprise certification to be obtained from the government. Under the related laws, certified social enterprises, prospective social enterprises, cooperatives, village enterprises, self-supporting enterprises, farming associations, agricultural corporations, fisheries corporations, social welfare corporations, self-support centers, Nonghyup, Suhyup, Shinyup, and the Korean Federation of Community Credit Cooperatives are legally official social enterprises.

Table 1 shows the definitions of the major social economy organizations mentioned above and the most recently confirmed official sizes [13]. Of course, social enterprises

do not only exist within legal boundaries. Even if not certified as a social enterprise by the government, there are companies that pursue social causes by aiming to solve social problems through the efficiency or effectiveness of for-profit organizations in the market, and these are called social ventures [9,14].

**Table 1.** Status and organizational types of major social economy organizations in South Korea [13].

Category	Government Department	Definition	Status (Number of Companies)
Social enterprise	Ministry of Employment and Labor	<ul style="list-style-type: none"> <li>- Certified social enterprise: a company that is certified according to certain standards as a business entity that produces and sells goods and services while pursuing social purposes, such as providing social services or jobs to the vulnerable or contributing to the local community</li> <li>- Regional preliminary social enterprise: a company that has the minimum legal requirements for social enterprise certification, but does not meet some requirements, such as profit structure, etc., and is designated by the heads of local governments to supplement future requirements</li> <li>- Preliminary social enterprise of government departments: a company that meets the minimum requirements for social enterprise certification and will supplement the requirements in the future as designated by the head of the central government</li> </ul>	Certified: 2704 Preliminary: 1609
Co-operative society	Ministry of Economy and Finance	<ul style="list-style-type: none"> <li>- General cooperative: a business organization that seeks to improve the rights and interests of its members and contribute to the local community by cooperatively purchasing, producing, selling, and providing goods or services (FRAMEWORK ACT ON COOPERATIVES)</li> <li>- Social cooperative: a cooperative from among the above cooperatives that is not for profit, such as those carrying out projects related to the promotion of the rights and benefits of local residents or those providing social services or jobs to vulnerable groups (FRAMEWORK ACT ON COOPERATIVES)</li> </ul>	General: 16,633 Social: 2456
Village enterprise	Ministry of the Interior and Safety	<ul style="list-style-type: none"> <li>- A village-level company established and operated by local residents to effectively realize local community interests by solving common regional problems and creating income and jobs through profitable projects using various local resources</li> </ul>	1556
Social venture	Ministry of SMEs and Startups	<ul style="list-style-type: none"> <li>- Companies that have technology and innovation while realizing social values</li> </ul>	998
Self-supporting company	Ministry of Health and Welfare	<ul style="list-style-type: none"> <li>- Self-supporting enterprise: a company in which two or more recipients or secondary superiors cooperate with each other to operate a self-supporting business for post-poverty in the form of a union or business operator</li> <li>- Prospective self-support company: designated as a start-up-intensive or support-type business group aiming to enter the market through start-ups of self-support companies within up to two years through public offerings by the Ministry of Health and Welfare</li> </ul>	1176

The number of social enterprises in Korea is not clear, but the number of government-certified social enterprises increased from 55 in 2007 to 2777 certified social enterprises and 1789 prospective social enterprises in 2020 [13]. However, social enterprises face self-supporting difficulties without direct or indirect government financial or sales support [15]. This phenomenon may be due to the deficiencies and limitations of the government's support policy for social enterprises, but fundamentally, it is because of the additional costs for social value creation activities and the externality of the resulting social value benefits (performance) in the market. In order to overcome these problems, various efforts

have been made to measure social value and incorporate it into the price mechanism of the market. In the same context, it should be understood that mixed results were reported in the previous studies that analyzed the correlation and causal relationship between economic and social performance (value) [16].

## 2.2. Measurement of Social Values

It can be said that the measurement and evaluation of social value first began in the environmental field. After the National Environmental Policy Act (NEPA) was enacted in the United States in 1969, the Council on Environmental Quality (CEQ) was established, and measurement of the value of environmental impact began. In the 1990s, social value measurement activities began in earnest in terms of corporate management. This started with the KLD (Kinder, Lydenberg, Domini) 400 Social Index (currently, the MSCI (Morgan Stanley Capital International) KLD 400 Social Index) in 1990, the Dow Jones Sustainability Index (DJSI) in 1999, and the REDF Enterprise (REDF) in 2000. In 2016, the Rise Fund's Impact Multiple of Money (IMM) and others were proposed. Accounting firms such as PwC and KPMG also proposed a measurement method that considers environmental, social, and governance (ESG) factors. PwC introduced Total Impact Measurement Management (TIMM), and KPMG introduced the True Value methodology. The methodology of accounting firms has the characteristic of calculating the benefits of stakeholders, such as customers, support, and local communities, in terms of money. In addition, B-Lab's B-analytics, the Korean Economic Justice Institute Index (KEJI Index) of the Federation of Economic Justice, the Korean Sustainability Index (KSI) of the Korean Standards Association, and the Social Value Index (SVI) of the Korea Social Enterprise Promotion Agency are further examples. Studies have been conducted in academia to measure social value by applying the balanced scorecard (BSC), one of the existing performance measurement indicators [17].

Most of the above-introduced measurement results, except for the social return on investment (SROI), IMM, and TIMM, are easy to compare between evaluation companies in the form of ratings, indices, and certification, but it is difficult to quantify the created social value. The SROI, IMM, and TIMM methodologies that can be measured by monetary value have the advantage of being able to be compared, even if the measurement subjects of social value are different. However, this monetary measurement methodology also has the disadvantage of reducing the direct comparative effect because the reference price (proxy) used between them may be different. Nevertheless, monetary value measurement can be said to be useful because it can be used directly for manager and investor decision making, and it can be used for investment feasibility analysis and future value calculation, as it makes it possible to calculate the profitability of social investment.

Since the 2000s, international organizations, such as the World Bank and the United Nations (UN), and non-profit foundations, such as the Rockefeller Foundation and the Roberts Enterprise Development Fund (REDF), have been considering how to measure social value. According to previous studies, there are 29 measurement methods, and there are eight methodologies to convert not only financial, but also non-financial factors into monetary value [17]. Table 2 shows the major methods used to monetize social value measurement. Social return on investment (SROI) was introduced by the REDF Foundation in 2000. SROI is widely used by US and European social impact investors, but it has been disadvantageous in that it is less valid and consistent in concepts and measurement methods, and the concept of social costs due to redundant accounting and arbitrary measurements is very complex [18,19].

SK in Korea measures social value in a monetary way. The basic methodology used in SK's monetizing of social performance in social performance incentive projects was introduced in the study of Rha et al. [20]. SK introduced the double bottom line (DBL) concept, developed as part of the social performance incentive project jointly promoted by domestic academia and related organizations to measure the performance of all SK groups and to measure social enterprises with the Social Progress Credit (SPC) program. Parameters such as the reference prices used for specific measurements have not yet been

disclosed for either measurement method, but the basic concept of measurement was introduced through previous studies [20–22].

**Table 2.** Major methods used to monetize social value measurement [17].

Method	Organization	Description
SROI	REDF	<ul style="list-style-type: none"> <li>- Measuring the value of social outcomes generated in preparation for input costs</li> <li>- Converting to the most common monetary value based on performance</li> </ul>
IMM	Rise Fund	<ul style="list-style-type: none"> <li>- The social and environmental values created by impact investments are measured based on accounting value</li> <li>- A method of seeking multiple social values created by the invested company for 10 years compared to the amount of equity investment</li> </ul>
TIMM	PwC	<ul style="list-style-type: none"> <li>- Organizations, projects, products, and services measure impacts generated in the social, environmental, tax, and economic sectors by schematically measuring them as accounting values</li> </ul>
True Value	KPMG	<ul style="list-style-type: none"> <li>- Measure impact by classifying positive or negative aspects in economic, social, and environmental areas</li> <li>- Easy to understand externality and make investment strategies easier</li> </ul>
Value-to-Society	BASF	<ul style="list-style-type: none"> <li>- Methodology for measuring monetary value developed based on PwC's TIMM</li> <li>- Measuring the economic, social, and environmental impact of activities within the corporate internal process and value chain</li> </ul>
DBL	SK Group	<ul style="list-style-type: none"> <li>- The actual result of management activities (outcome) is measured as monetary value by applying objective reference price (proxy) by distinguishing indirect economic contribution performance, business social performance, and social contribution social performance</li> </ul>
FES	Novatis	<ul style="list-style-type: none"> <li>- Based on KPMG's True Value approach</li> <li>- Supply, execution, and customer impact of the value chain are measured as monetary value</li> </ul>

### 2.3. Social Performance Incentives of SPC

SK proposed the concept of SPC at the Davos Forum in 2013, and the Korea Social Enterprise Promotion Agency, the Korea Social Enterprise Central Council, and academia jointly formed a social performance incentive promotion team to promote the system. Since 2015, SK has raised funds, and the Center for Social Value Enhancement Studies ([www.cses.re.kr](http://www.cses.re.kr) (accessed on 13 November 2021)) has been recruiting social enterprises, measuring financial performance and social performance, providing social performance incentives, and releasing annual collected results as a database. SK's DBL and SPC are the basic principles of social performance measurement and are based on the principles of stakeholder accounting, conservatism, and reference market standards. Stakeholder accounting refers to creating accounts for each stakeholder, filling in the respective benefits and expenses incurred in the account, and summing them up. From the perspective of stakeholder accounting, subsidies from the government, foundations, and large corporations related to solving social problems are regarded as social expenses of the stakeholder and, thus, excluded. The principle of conservatism is a principle that recognizes only the minimum level that anyone can agree on in the case of controversial social performance as social performance. Excluding the welfare of general consumers from social performance, only welfare related to the target group of social problems is recognized as social perfor-

mance. In addition, only the achievements additionally created by social enterprises are recognized as social achievements, when compared with the second-best alternative to solving the social problem. The reference market standard value estimation is a concept that estimates the realistic market price of social value and recognizes it as social performance only when there is a clear reference value (proxy) in the reference market. This is largely divided into price-based estimation and cost-based estimation. Price-based estimation is used to estimate benefits based on market prices, demand, and prices where supply intentions occur and cost-based estimation is used to estimate benefits based on costs when market prices do not exist [20].

In the SPC project, social performance is regarded as the sum of social service performance, employment performance, environmental performance, and social ecosystem performance [20]. Service performance refers to the effect of improving the quality of life of the target group caused by social services such as welfare, health, education, and culture. Employment performance signifies the effect of increasing the benefits of society caused by hiring socially vulnerable groups, such as the disabled and low-income families. The environmental performance department estimates the monetary value of reduced resources and reduced pollutants. Social ecosystem performance measures the added value contributed to the ecosystem by social enterprises whose mission is to increase income in vulnerable areas and support the social enterprise ecosystem, and it also includes contributions to the community's sociocultural asset growth.

Based on the SPC Data Base, the number of measured companies increased from 43 in 2015 to 200 in 2019, which was 8.5% of all government-certified social enterprises according to the Social Enterprise Performance Analysis Report [13], and brief information regarding the companies that participated in 2019 is summarized in Table 3.

**Table 3.** Brief statistics of companies that participated in 2019.

Industry Category	Number of Companies (ea.)	Average Age (years)	Average Employee Hired (Person)
Manufacturing	51	10.2	17
Other services	40	9.8	16
Distribution and transportation	22	10.6	15
Social welfare services	18	12.3	190
Education	18	8.8	14
Culture and arts	18	9.7	27
IT	12	8.5	19
Facility management	9	10.7	18
Construction and real estate	6	10.2	7
Local health services	6	11.8	87
Sum	200	10.2	35

Table 4 shows the statistics of the social performance incentive project and the cash incentives paid. Incentives are paid in cash, and there are no additional obligations for incentives. The average incentive payment by company varies annually, but it is approximately KRW 50 million, and the cumulative incentive payment between 2015 and 2019 was KRW 33.9 billion.

**Table 4.** Brief statistics of social performance incentive projects and cash incentives paid.

(Unit: Billion KRW)	2015	2016	2017	2018	2019	Total
Number of measurement companies (e.a.)	44	92	125	168	200	
Social performance:	9.536	20.103	32.361	45.623	59.668	167.291
Social service	2.784	7.286	12.875	16.491	22.204	61.639
Employment	5.418	8.412	12.881	18.991	24.172	69.874
Environmental	0.132	1.055	2.524	3.934	6.073	13.719
Social ecosystem	1.202	3.351	4.081	6.206	7.220	22.060
Average social performance	0.217	0.219	0.259	0.272	0.298	
Total revenue	71.020	124.916	155.025	247.115	329.183	927.259
Average sales per company	1.614	1.358	1.240	1.471	1.646	
Average social performance per average revenue (%)	13.4%	16.1%	20.9%	18.5%	18.1%	
Total amount of cash incentives paid	2.623	4.732	7.269	8.702	10.574	33.900
Average incentive paid	0.60	0.51	0.58	0.52	0.53	

#### 2.4. Social Performance Incentives

Previous research on social performance focused on the relationship between corporate social performance and financial performance from an accounting perspective and on compensation and policymaking from an organizational psychological perspective. Whether corporate social performance affects financial performance remains unclear in many manufacturing industries. Profitable companies have stronger incentives to disclose information about social performance to improve publicity. On the other hand, companies may face fears of rising costs due to corporate social responsibility (CSR) activities [23]. Another study on the performance and influencing factors of social enterprises showed that certification type, amount or quality of social service provision, and community contributions were significantly related, and that the correlation or causal relationship between the economic and social performance of social enterprises are mixed [16].

A further research topic was the incentive effect on social performance within the organization. Social incentives are strong motivations to be considered in the design of organizational policies, and they are also known to improve or decrease productivity, depending on the policy setting [24]. However, a study examining the relationship between CEO (chief executive officer) incentives and social performance found that CEO incentives had no significant relationship with social performance. However, long-term pay and long-term incentives were found to have a positive relationship with weak social performance [25].

A different study examined socially responsible consumer intention and behavior in the context of social entrepreneurship. Consumers' intention to purchase the products and services of social enterprises had a positive effect on socially responsible consumption behavior, and, in particular, progressive political ideology and a high income level strengthened the positive relationship between socially responsible consumption intention and behavior [26].

Looking at the progress of these research topics, research on cash incentives for social enterprises is still insufficient. This is because the methods of supporting social enterprises differ by country or region, and it is also due to the fact that the model in which private enterprises measure social performance and give cash incentives to social enterprises is very rare. A recent study on social performance incentives in Korea examined the effects of introducing incentive plans based on social performance in 186 samples of social-mission-oriented companies in South Korea [8]. After adopting an incentive plan based on social performance, it was found that the social performance of social enterprises (SEs) improved significantly over time and that incentive effects increased with managers' perceived measurability of social performance. In addition, it was confirmed that social incentives do not harm an SE's financial performance and have a positive effect on an SE's financial

performance with high complementarity between social and financial goals. However, the determining factors regarding the incentive amounts were not explained, and there is little research on the possible explanation for the incentive offer amount.

### 3. Methodology

This paper analyzes how the four social performance factors in Table 4 (i.e., social service performance, employment performance, environmental performance, and social ecosystem performance) are affected by monetary incentives using the SPC project database. For an empirical analysis, we assume the following hypothesis: The cash incentive amount would be directly increased if participants create social value as well as economic value. Social value has sub-categories, as described above, and there would be differences between the areas of social value: social service performance, employment performance, environmental performance, and social ecosystem performance. Furthermore, economic value creation would be important because it could be interpreted as contributing to the sustainability of the business model; it would be better for an SPC project manager to give cash incentives to promising companies and to promote outcomes.

This study also aims, through empirical analysis, to identify how the cash incentive amounts are determined with regard to specific social activities, such as social service performance, employment performance, environmental performance, and social ecosystem performance, as well as by reference to the size of the social enterprise and its financial performance, i.e., revenue and net profit.

When it is considered that the SPC program began in 2015, that the database construction period is short, and that the nature and composition ratio of participating companies have changed every year, it is difficult to say that the social performance incentive payment criteria have been employed in the same way every year. In addition, the SPC officially announced that incentives would be proportional to social performance, but the specifics of the methodology have not yet been published. Thus, this paper investigates how the incentive payment policy can be affected by the social and financial performance factors for each year and analyzes the separated regression models of financial performance and social performance for each year.

In order to discover the social performance affecting the size of incentives, the incentives paid to each company were used as dependent variables, and four social performances (social service performance, employment performance, environmental performance, and social ecosystem performance) were used as independent variables. The regression model for Model 1 is as follows:

Model 1: Social performance and incentives:

$$\text{Incentive} = a_0 + a_1\text{service} + a_2\text{employ} + a_3\text{environment} + a_4\text{ecosystem}$$

When a cash incentive is distributed to social enterprises, the incentive amount can be determined by the social enterprises' asset and capital size and by its financial performance, i.e., revenue, operating profit, and net income. The regression model for this financial performance model is as follows:

Model 2: Financial performance and incentives:

$$\text{Incentive} = a_0 + a_1\text{asset} + a_2\text{capital} + a_3\text{revenue} + a_4\text{operating profit} + a_5\text{net income}$$

The incentive amount can be ascertained by using the firms' size and their revenue from fostering social activities, along with the government policy stance. Thus, this study also examines how cash incentives are affected by the size of social enterprises, the revenue, and the interaction effect between a firm's size and its revenue. To see the interaction effect between assets and revenue on incentives, we examined Model 3 as follows:

Model 3: Interaction effect model of asset and revenue:

$$\text{Incentive} = a_0 + a_1\text{asset} + a_2\text{revenue} + a_3\text{asset} \times \text{revenue}$$

In this study, data collected by the Center for Social Value Enhancement Studies (CSES) from 2015 to 2019 were used. Among the observations, companies that omitted specific variable data necessary for empirical analysis were excluded from the analysis, and as of 2019, the number of companies to be analyzed was 200. Table 5 shows the variables used in the models.

**Table 5.** Variables' descriptions.

Model	Category	Symbols	Description
Common	Dependent	Incentive	Cash incentive paid
1	Independent	Service Employ Environment Ecosystem	Social service performance Employment performance Environmental performance Social ecosystem performance
2	Independent	Asset Capital Revenue Operating profit Net income	Asset Capital Revenue Operating profit Net income
3	Independent	Asset Revenue Asset × revenue	Asset Revenue Asset × revenue

## 4. Results

### 4.1. Descriptive Statistics

Table 6 shows that the descriptive statistics of the variables used in this study were confirmed. The average value of the assets and capital sizes of the participating companies is KRW 1.45 billion and KRW 170 billion, respectively, and the maximum value and quartile show that the distribution of assets and capital is biased to the right. In addition, the average operating profit and net profit were observed to be negative at KRW −100 million and KRW −20 million, and, in particular, the maximum operating loss is KRW 3.3 billion. However, in terms of quartile values, half of the companies are in the red and half are in the black. Both of the social performances show positive values, but the employment performances show negative values, and these are calculated by subtracting subsidies when hiring vulnerable measures from the method of measuring the employment of social performance incentives. The minimum incentive value is KRW 5 million, which can be judged to be at least KRW 5 million in cash incentives for participating companies. The minimum or quartile value of social performance may be observed as zero because the participating companies have not created a social performance sector or because the social performance measurement formulas for each field measured by social performance incentive projects have not yet been established.

**Table 6.** Descriptive statistics (unit: million KRW, year: 2019).

	Asset	Capital	Revenue	Operating Profit	Net Income	Service	Employ	Environment	Ecosystem	Incentive
<b>count</b>										
<b>mean</b>	1451	174	1646	−112	−17	111	121	30	36	53
<b>std</b>	1777	277	2773	428	399	291	339	188	90	90
<b>min</b>	0	0	0	−3337	−3312	0	−150	−138	0	5
<b>25%</b>	270	25	323	−143	−30	0	0	0	0	6
<b>50%</b>	663	69	788	−28	9	11	5	0	0	19
<b>75%</b>	2109	200	1730	43	68	107	82	0	25	57
<b>max</b>	9259	2200	22,206	1282	886	2404	3071	2365	634	617

#### 4.2. Correlation Analysis of Incentive Factors

The correlation between variables was confirmed using data from 2018 and 2019 to determine if the incentives received by the companies from the previous year actually affected their economic and social performance in the next year. The results of the analysis in Table 7 showed a significant positive (+) correlation between incentives and assets, sales, net profit, social service performance, and employment performance variables. This can be said to have the effect of helping social enterprises create social value, as well as reducing operating profit, due to active social value creation activities, while positively affecting net profit due to cash incentives (subsidies) to maintain business continuity. In addition, these results are similar to the results of a previous work [21], which analyzed the effect of incentives on high-employment social enterprises that can improve net income due to cash incentives, although operating profits tend to decrease, partially sacrificing financial performance and pursuing social performance.

**Table 7.** Correlation analysis between incentives in 2018 and performance variables in 2019.

	Incentive_18	Revenue_19	Operating Profit_19	Net Income_19	Service_19	Employ_19	Environment_19	Ecosystem_19
Incentive_18	1	0.413 **	0.060	0.190 **	0.505 **	0.632 **	0.031	0.023
Revenue_19	0.413 **	1	0.196 **	0.278 **	0.281 **	0.327 **	0.135 *	0.177 **
Operating profit_19	0.060	0.196 **	1	0.898 **	−0.019	0.083	0.026	−0.051
Net income_19	0.190 **	0.278 **	0.898 **	1	0.007	0.191 **	0.011	−0.009
Service_19	0.505 **	0.281 **	−0.019	0.007	1	−0.030	−0.054	−0.084
Employ_19	0.632 **	0.327 **	0.083	0.191 **	−0.030	1	−0.020	−0.060
Environment_19	0.031	0.135 *	0.026	0.011	−0.054	−0.020	1	−0.049
Ecosystem_19	0.023	0.177 **	−0.051	−0.009	−0.084	−0.060	−0.049	1

Significance level (two-tailed) \*  $p < 0.05$ , \*\*  $p < 0.01$ .

#### 4.3. Social Performance and Incentives

Table 8 shows that social service performance and employment performance had a great influence on the incentive offer. It was observed that the regression coefficient of employment performance increased from 2018, and in 2019, it was noted as the factor that had the greatest influence. This is presumed to be due to the relatively easy and objective measurement of earned income compared with the other three items as the number of participating companies increases. Previous studies also reported that the employment performance of companies accounted for 53.3% of the total social performance as of 2019 as a result of a performance data analysis of 74 companies that continuously participated in social performance incentive projects [21]. In addition, domestic social enterprises are operated by a government-certified system, and the Ministry of Labor, a major certification body, is divided into five types: job-providing, social-service-providing, community-contributing, mixed, and other types. Social service performance is a field that actively develops and applies measurement formulas in SPC projects that monetize the uncompensated market value of the services provided by social enterprises [21,27,28]. Considering these preceding studies and domestic circumstances, it is estimated that the regression coefficient increased due to two influences: (1) the effect of the government's employment priority policy related to social enterprises; (2) the relative ease of objective monetization compared with other social performances.

**Table 8.** The results of the regression analysis of incentives and social performance.

	2017		2018		2019	
	Coefficient	t-Value	Coefficient	t-Value	Coefficient	t-Value
service	0.684 **	58.016	0.637 **	27.576	0.564 **	22.767
employ	0.492 **	41.758	0.618 **	26.832	0.627 **	25.381
environment	0.400 **	34.272	0.198 **	8.602	0.467 **	18.882
ecosystem	0.177 **	15.188	0.209 **	9.068	0.217 **	8.751
R <sup>2</sup>	0.971		0.886		0.868	
Durbin–Watson	2.206		1.528		1.913	

Significance level (two-tailed) \*\*  $p < 0.01$ . The dependent variable is the incentive in the same fiscal year.

#### 4.4. Economic Performance and Incentives

Looking at the results of the empirical analysis of economic performance and incentives from 2017 to 2019 in Table 9, statistically significant variables were observed, although they were not consistent in every year. In relation to incentives, sales were observed in 2018 and 2019, operating profits in 2017 and 2018, and net profits in 2018.

**Table 9.** Economic performance and incentives.

	2017		2018		2019	
	Coefficient	t-Value	Coefficient	t-Value	Coefficient	t-Value
asset	0.127	1.374	−0.041	−0.550	0.082	1.040
capital	0.024	0.337	−0.031	−0.480	−0.024	−0.354
revenue	0.165	1.802	0.555 **	7.784	0.420 **	5.308
operating profit	−0.419 **	−3.963	−0.357 **	−3.630	−0.165	−1.170
net income	0.450	4.165	0.311 **	3.125	0.134	0.914
R <sup>2</sup>	0.156		0.315		0.221	
asset	0.127	1.374	−0.041	−0.550	0.082	1.040

Significance level (two-tailed) \*\*  $p < 0.01$ .

In addition, the interaction between assets and sales was also confirmed. From 2017 to 2019, incentives showed a positive (+) relationship with sales and a negative (−) relationship with the interaction variable between assets and sales shown in Table 10. In other words, it can be interpreted that incentives increase when the asset size is small and the sales are large. More incentives to small SEs with growing sales could help to increase social outcomes and impacts on society.

**Table 10.** Interaction effect between assets and sales.

	2017		2018		2019	
	Coefficient	t-Value	Coefficient	t-Value	Coefficient	t-Value
asset	0.1138	1.330	−0.0540	−0.776	0.0613	0.882
revenue	0.4634 **	3.786	0.7743 **	6.982	0.6581 **	5.732
Asset × revenue	−0.1669 **	−2.813	−0.1529 *	−2.580	−0.1342 *	−2.583
R <sup>2</sup>	0.112		0.294		0.239	
Durbin–Watson	1.744		1.841		2.101	

Significance level (two-tailed) \*  $p < 0.05$ , \*\*  $p < 0.01$ .

Furthermore, as government-led win–win cooperation took effect during the 1998 IMF crisis, the social responsibility activities of domestic companies have been in line with the concept of win–win cooperation and shared growth with SMEs or partners since the 2000s. Previous studies have also reported cases of cooperation between large companies and SMEs as a way to solve the polarization problem between domestic small and medium-sized enterprises [29], and the SPC program led by the SK Group can also be seen as a broad shared growth program.

No significant relationship was observed with incentives for asset and capital variables during the analysis period. However, in a further analysis using dummy variables, a statistical relationship between assets and incentives was observed in 2019. The results showed that the incentives were positively related to both small companies and large companies with large assets. The growth rate was also positively related.

Although it is difficult to distinguish the factors influencing incentives through a short-term five-year analysis of an SPC program, it could be interpreted that more incentives were given to companies that tried to create social performance, even at the expense of economic benefits, until 2017. After 2018, it could be seen differently, i.e., as giving more additional points to the growth of individual social enterprises. Since most of the companies participating in the project are social enterprises that perform social missions, individual enterprises can assume that sales or company size (assets) have grown by more efficiently supplying solutions (or social services) to the market, and they can be thought of as accelerating social problem solving. This can be interpreted in the same context as the results of the empirical analysis.

## 5. Concluding Remarks and Future Work

Social enterprises in Korea, which have emerged as one of the solutions to the social problems caused by market failure, are growing rapidly with the help of government and other institutional policy. Social enterprises pursue both economic profits and social values through their business models, despite profit loss. In fact, nearly half of the social enterprises registered with the government have a small operating profit of less than KRW 50 million and are difficult to operate without direct or indirect government support.

This study analyzed the payment factors and effectiveness of cash incentives in SK's social performance incentive project, which has been the only one in Korea since 2015. As a result of the annual regression analysis of each social performance factor and incentive as variables, employment performance and social service performance were found to be important variables in determining the size of incentive payments. In particular, in the case of employment performance, it was observed that the coefficient value has increased since 2017, which can be interpreted as a relatively easy measure of employment performance and as a result of the government's policy that prioritizes job creation. Economic performance was also observed to be statistically significant in the determinants of incentives. A positive relationship of incentives with sales and net profit was observed, and a negative relationship of incentives with operating profit was seen; through an analysis of the interaction of assets and sales, incentives increased when the asset size was small and the sales were large. The fact that social enterprises are highly likely to grow can be interpreted as an intention to support growth through more support, as it can be judged that the social enterprise business model is more effective in solving social problems, as proven in the market.

Cash incentive payments were found to have a positive effect on the increase in sales and net profit of social enterprises, supporting the permanence of social enterprises. This shows that the performance of social problem solving pursued by social enterprises can serve as a price compensation activity that compensates for market failure to some extent, and by paying the basis of such compensation in proportion to social and economic performance, it is also differentiated from subsidies paid collectively by existing governments or institutions.

In addition, cash incentives provided directly to social enterprises may be more effective when the demand in public markets for services such as healthcare increases rapidly, such as in the COVID-19 pandemic. If specific social services are needed in a crisis, it may be inefficient for the government to respond directly; rather, specialized social enterprises can respond more quickly to improve social performance.

In a similar case study, in order to cope with the rapidly increased medical demand due to the COVID-19 pandemic in China, the government-led pressure to expand the provision of social value to private companies in a top-down manner was examined [30]. Chinese companies responded with agility and adaptability by using the available local

resources, innovating within the companies, and a flexible liquidity of resources. If the government has strong market control, such as in China, private companies can respond to public demand in a top-down manner. However, in many countries, it may be difficult to expect social services to be provided in a timely manner simply at the request of the central government. Private enterprise–social enterprise solidarity, such as in the SK Group, can respond professionally and immediately to a demand for social services, regardless of the political form of government, which can actively play a role as a social safety net in the private sector.

The practical contributions and limitations of this study are as follows. By analyzing the basic concepts of social performance incentives supported by SK and the empirical data accumulated since 2015, we can help companies participating in existing programs or social enterprises to support social performance incentives in the future. However, since the empirical data of the 200 participating companies are insufficient to represent all social enterprises, including Korean social ventures, the estimated parameters may not represent the population. In addition, as social performance incentives select and support social enterprises through their own selection process, the possibility cannot be ruled out that the sample group is biased, as they can be seen as the first companies proven to create social and economic performance.

Considering that this is the only social-performance-measurement-based cash incentive program ever attempted in Korea and that the number of applicants is increasing every year, follow-up studies, such as those using time-series panel analysis and those studying incentive payment algorithms using AI technology, will be possible.

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