

The Impact Assessment of CSR Program using Social Return on Investment (SROI): A Lesson from Pertamina Patra Niaga Integrated Terminal Jakarta Indonesia

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Abstract: - The measure of the company's success is now shifting to maximizing profits and contributing to the achievement of environmental and community development by the triple bottom line concept. The purpose of this study is to analyze the social impact of the Bunda Koja CSR program during the period 2018 to 2021. The case study approach, which is ideal for thoroughly examining complicated social phenomena using the SROI method, which is carried out through some activities in the CSR Program (i.e. digital marketing training, BPOM technical support, food handler training, financial governance training, Pertamina Sehati School of Nutrition, etc.) is assessed its impact on the community through SROI method. The stages of the SROI method are carried out by defining the scope and identifying stakeholders, mapping impact, proving impact and giving it value, establishing impact, establishing the value of the investment, and calculating the SROI ratio. The results of this study indicate that the SROI ratio is 1.89 showing that every rupiah spent to be invested to support the program will gain an impact value IDR 1.89. The result indicates that such a program is considered to be favorable to continue to support community development.

Key-Words: - Community Development, CSR, SROI, Social Impacts, SDGs

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1 Introduction

Under the "triple bottom line" concept, a company's success is now measured by how well it makes money and helps the environment and the community. The corporate social responsibility (CSR) program within the scope of companies in Indonesia is called social and environmental responsibility (SER). It is an agenda that must now be implemented by some companies set up by government regulations to support achieving these goals. SER is a type of corporate responsibility to the community in which, in addition to maximizing the welfare of company owners, the company is expected to be a good citizen, be ethical, and comply with applicable laws, [1]. When referring to Law Number 40 of 2007, Article 1, the definition of

SER is the company's commitment to participate in sustainable economic development to improve the quality of life and the environment that is beneficial, both for the company itself and the local community and the community in general, [2].

CSR is defined as the business plan that allows companies to operate in a manner that benefits the environment and society rather than harming them, [3]. CSR is a business strategy that ensures firms are not only self-regulated but also accountable to their stakeholders, which include customers/clients, employees, shareholders, suppliers, middlemen/distributors, the host community, and the general public, [4]. Specifically, sustainability necessitates that the company practice stewardship of the community and environment in which it

operates. They are expected to conduct their activities in a manner that satisfies present needs without diminishing the likelihood that future needs will be met, [5].

There are many arguments behind the implementation of CSR programs. Based on Law Number 40 of 2007, the implementation of CSR programs is mandatory for companies that carry out their business in the field of and related to natural resources and are obliged to carry out social and environmental responsibility. The requirement of implementing CSR programs is also regulated by Law Number 25 of 2007, Article 15, which states that every investor must carry corporate social responsibilities. Article 16 also requires that investors must maintain environmental sustainability, [6]. If the investor does not perform his obligations to carry out the SER, it will be subject to administrative sanctions (Law Number 25 of 2007 Article 34), namely: a. a written warning; b. restrictions on business activities; c. freezing of business activities and investment facilities; or d. revocation of business activities and investment facilities. In Article 40, paragraph (5) of Law Number 22 of 2001 concerning Oil and Gas, it is also said that business entities or permanent establishments that carry out oil and gas business activities (upstream business activities and downstream business activities) are also responsible for developing the environment and local communities, [7].

Along with the mandatory aspect of CSR implementation, the motive for implementing such a program has been researched so far. One argument is to support the company's financial performance. The implementation of the CSR program which is reported in the company sustainability report has been found to have a positive impact on financial performance, [8], [9], [10]. When looking more specifically at the oil company, however, implementing CSR is a response to surrounding community pressure. Such pressure forces oil companies to be able to implement appropriate CSR strategies and evaluate the implementation of CSR programs, [11]. The evaluation of CSR strategies is important since one empirical research suggests that CSR programs of oil transnational companies haven't helped communities grow and have, in some cases, even led to conflicts between and within communities, [12].

Evaluation of CSR programs is argued to be measured periodically due to three main reasons: to measure the achievement of program objectives, develop development to be more effective and efficient, and address causes in the form of internal

and external accountability needs. CSR programs are said to be successful if they achieve their goals. There are various models to measure the impact of this program, such as scorecards, rating systems, etc. A relatively new model that provides a simple but easy-to-translate measure is the social return on investment (SROI) analysis. The three aspects measured using SROI are economic, environmental, and socio-cultural. These three aspects refer to the "triple bottom line" concept, a concept that is the starting point for development goals that are in line with Sustainable Development Goals (SDGs). Social Return on Investment (SROI) is a framework used to understand, measure, and assess the net social impact of an activity, organization, or intervention, [13]. With its measures, this SROI gives clear direction so that social effects that were hard to measure before become more accessible and easier to measure.

Buda Koja is one of the CSR Programs of Pertamina Patra Niaga Integrated Terminal Jakarta to empower women and mothers of malnourished toddlers in Rawa Badak Selatan Sub-district, which is located in the Ring 1 surrounding area of the company. Since 2018 the company through the Bunda Koja Program has conducted some activities in the health sector, and education, as well as coaching small businesses to improve the community's standard of living. The impact of such a program needs to be assessed to support company evaluation and planning in CSR strategies. The purpose of this research is to provide an empirical study on the impact assessment of an oil company's CSR program using Social Return On Investment (SROI) especially the Bunda Koja Program from 2018 to 2021.

2 Literature Review

The essence of corporate social responsibility is the enhancement of the welfare of society's members and the promotion of environmental sustainability. The proper implementation of CSR initiatives requires organizations to be motivated not only by the pursuit of financial gain or a positive reputation but also by a desire to positively impact the lives of members of the host community, [14]. In addition to charitable contributions, businesses are expected to invest in infrastructure, fundamental amenities, cultural activities, and social cohesion in their host communities. This is accomplished by involving community stakeholders who assist the company in identifying urgent intervention areas or aspects of society. As a consequence of increased income, the economic status of individuals and families would

improve as a result of these interventions, [15]. Community development entails the coming together of a group of people in a community to plan and act to satisfy their needs with the goal of achieving desired change in their lives through their cooperative efforts and by actively participating in measures designed to enhance their living conditions, [16]. Community development is the collection of processes, programs, strategies, and activities that make a community sustainable, as opposed to economic development, [17]. There are two aspects to community development: fundamental development and collective development. The former refers to the improvement an individual experiences in meeting his basic requirements, i.e., his immediate needs that ensure his survival in society, [14]. This means that these are requirements that the individual cannot function without; basic development is considered to have occurred when these needs are met. These requirements constitute a portion of the foundation of societal development. CSR improves both the functional and social values of community members, [17].

Collective development, on the other hand, is society-focused. It occurs when individuals in a community look beyond their basic requirements and pool their resources collectively to meet societal demands, [18]. This implies that each individual must assume the responsibility of providing for the whole, and the complexity of society necessitates that he obtain a certain level of competence and skills to meet this demand. Without the combined efforts of these competencies and abilities, there will be no collective development. This is due to the fact that their combined efforts will produce collective growth, [19].

For assessing the impact of community development programs, several approaches are evolving. SROI is a framework to measure and account for the value provided by program initiatives that go beyond financial value, according to the SROI handbook, [20]. It includes the costs and benefits of social, environmental, and economic factors. SROI assigns a value to the degree of change (impact) brought about by the program and considers the rewards for those who help bring about the change. One feature of SROI is that it primarily concentrates on the social consequences (such as well-being) of social activities for which there are no market values and incorporates the opinions of various stakeholders, [21]. SROI's theoretical foundation is built on the theory of change, a framework for describing how an initiative should proceed from inputs to results, [22].

Inputs, outputs, and outcomes are depicted as a continuum of factors that together explain how and why a desired change is anticipated to occur in a particular setting, [23]. An SROI ratio is produced by estimating a monetary value for the change and contrasting it with the investment necessary to achieve that impact. Economic evaluation frameworks, notably the cost-benefit analysis (CBA), are the foundation of SROI. While CBA only considers economic costs and benefits, SROI takes into account a wide range of stakeholders involved in the activity to evaluate diverse social consequences, [24].

SROI is a participatory, beneficiary-driven methodology that employs monetary values established by program beneficiaries to represent social, environmental, and economic results. Making an impact map that shows the impact value chain for each stakeholder group is one of the process' most crucial steps, [25]. It connects the goals of a stakeholder to the program's inputs, outputs, and outcomes. Then, it identifies outcome achievement indicators that can be quantified by using financial proxies.

The method then estimates how much of the result would have occurred regardless of the program and how much of the result the program is responsible for. Four filters—deadweight, displacement, attribution, and drop-off—are examined to achieve this, [26].

SROI benefits management (e.g., policymakers and project managers) in four ways: (1) it improves resource optimization by calculating cost-effectiveness, [27]; (2) it strengthens accountability and communication with numerous stakeholders; (3) it raises community awareness of an organization's profile; and (4) it develops organizational (or program) sustainability, [13]. Even though SROI has several drawbacks, such as the absence of recommendations for calculating long-term effects, [28], the potential for over- or under-claiming, or the propensity to emphasize the positive effects, [29], these problems are not specific to SROI, unlike CBA, [30]. The validity of the estimate could be protected by ensuring transparency when computing SROI.

3 Methods

3.1 Research Context

This study used a case study approach, which is ideal for thoroughly examining complicated social phenomena, [31]. The findings are appropriate for management inquiry even though the case study

approach is unlikely to enable theoretical and statistical generalizations, [32]. The case study needs a strict research design, which includes criteria for interpreting survey results, units of analysis, logic connecting the data to the propositions, and research questions and hypotheses, [31]. Since these assumptions are accurate, it is appropriate to utilize the SROI methodology to illustrate the societal impact of a CSR initiative. The primary data for this study came from interviews, observations, and conversations with people involved in the topic. Meanwhile, secondary data is obtained from written data, for example, program proposals, program realization reports, etc.

Using the Social Return on Investment (SROI) methodology, the social impact analysis of CSR programs conducted by Pertamina Patra Niaga Integrated Terminal Jakarta on the Bunda Koja Group from 2018 to 2021 will be presented in this study. For 2021, it is only valid until the end of August and not for an entire year. The impact of ten activities of Bunda Koja has been assessed: (1) digital marketing training; (2) BPOM technical support; (3) food handler training; (4) financial governance training; (5) Pertamina Sehati School of Nutrition; (6) food product registration at BPOM; (7) registration of MUI halal food products; (8) all catfish parts; (9) catfish farming in buckets; and (10) Aloe Vera Koja.

3.2 Data Collection and Analysis

The data collection and analysis is based on the stages of SROI described in Figure 1. which includes: (1) defining the scope and identifying stakeholders; (2) impact mapping; (3) proving impact and giving it value; (4) establishing impact; (5) Establishing the value of the investment; and (6) calculating the SROI ratio (Figure 1), [13].

3.2.1 Defining the Scope and Identifying Stakeholders

The scope of the activity must be formulated. The program's name follows the duration of implementation, the stakeholders involved, and details of activities and benefits for the intended community. These stakeholders are parties related to the activity program; in this case, it is the community to which the program is addressed. The data being investigated consisted of secondary data, which is a company CSR program report, and primary data gathered by some interviews with company CSR account officers and potential stakeholders. Some aspects to consider to set the scope are: program purpose, audience, background,

resources, persons who carry out the work, the range of activities being focused on, the period of time of the intervention, and deciding whether the analysis is a forecast or an evaluation. The identification of stakeholders is conducted by some interviews to confirm the information in the company CSR program report.

3.2.2 Impact Mapping

There are five steps to filling out the impact map: (a) starting on the impact map, (b) identifying inputs, (c) valuing inputs, (d) clarifying inputs, and (e) describing outcomes.

3.2.3 Proving Impact and Giving It Value

The third phase involved creating certain outcome indicators, which were later utilized to gather data on the actual outcome. The relative importance of the actual outcome is further being assessed in this phase. This impact mapping is carried out by referring to confirmed activity proposals in the communities involved. Observation and discussion with the community involved show proof of impact. The impact is measured and explicitly analyzed, resulting only from the assessed activities.

3.2.4 Establishing Impact

Impact value monetization is a financial measurement of the impact of activities. An analogy in this monetization process is needed, with an approach that puts conservatism forward. At this stage, an SROI filter analysis was carried out, measuring four indicators: deadweight, displacement, attribution, and drop-off.

3.2.5 Establishing the Value of the Investment

The determination of investment value is a determination of how much total expenditure occurs to carry out the program as planned and calculate the SROI ratio. The present value is measured by involving the current discount value applicable in the measured region. In this analysis, the BI 7-day repo rate is used.

3.2.6 Calculating SROI Ratio

According to, [23], the SROI technique identifies the value of the change and specifies how it is made. As was already said, this way of thinking is reflected in the concept of transformation, [22]. In our study, the SROI was calculated using the following formula:

$$SROI = \frac{\text{Net Present Value of Impact}}{\text{Total Investment}}$$

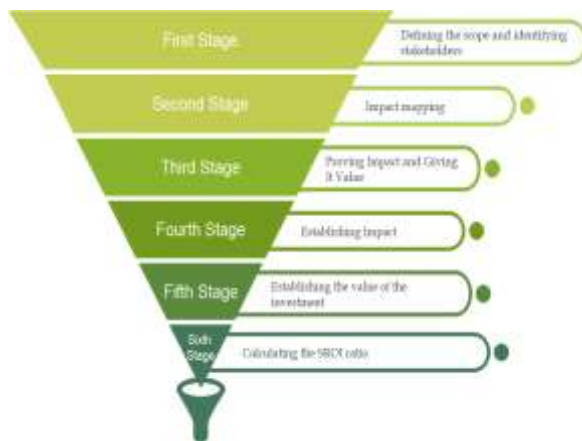


Fig. 1: The stages of SROI analysis

4 Results

The results of study is presented based on the stages of SROI analysis.

4.1 Stage 1: Defining the Scope and Identifying Stakeholders

Defining the scope of the assessment considering the analysis's goal, the activity it was meant to look at, the content (including whether it was worth looking at or not), the time frame for the analysis, and the content itself. Next, we determined which stakeholders are involved in the program using, the [30], approach, which defines stakeholders as individuals or groups that have an impact on or undergo change as a result of the program. Interviews and discussions have been conducted at this stage to gather information regarding the scope of the analysis and important stakeholders. As shown in Figure 2, the determination of scope and stakeholders impacted.



Fig. 2: Scope and Stakeholder Map

In 2020, mothers from the community of Rawa Badak Selatan attended one to four 60-minute sessions of this digital marketing course. A digital marketing specialist is the course's resource. The mothers of the Bunda Koja cadres attended the Food and Drug Supervisory Agency (BPOM) training in the Koja District, North Tugu Village Community Health Center Hall. This technical advice is funded

in two parts and was developed in partnership with the Koja District Health Center and the Pertamina Patra Niaga Integrated Terminal Jakarta. The subject matter covered included how to process food productions that meet BPOM safety criteria for ingestion. The Professional Certification Institute for Quality Assurance and Food Safety, which will be accredited by the National Professional Certification Agency in November 2020, is offering food handler training that Bunda Koja cadres can take part in. Financial governance training is a course for Bunda Koja cadres that attempts to teach students how to handle their finances using a straightforward program, the SIAPIK application. Four resource people from the Koja District's Department of Industry, Trade, Cooperatives, and Small and Medium Enterprises participated in this training. To address the issue of toddler malnutrition in the Koja District region, Pertamina Patra Niaga Integrated Terminal Jakarta works in conjunction with the Koja District Health Center through the Pertamina Sehati School of Nutrition program. From September to November 2018, the event lasted three months, with 10 days every month. This program includes activities like nutrition counseling, offering educational game facilities, and having a variety of complementary practical foods made by moms and parents of young children. This exercise was successful in resolving the issue of 22 undernourished children, whose nutritional condition improved to normal at the end of the program after Koja District Health Center obtained measurements of their height and weight. At the Padma Mitra Awards+ ceremony in 2019, as the best program for eradicating stunting in the DKI Jakarta area category, Pertamina Sehati School of Nutrition activities got praise from the Governor of DKI Jakarta. This food product registration includes technical advice from the Health Service Tribe (SUDINKES), tax ID (NPWP) management, business number (NIB) management, PIRT-6 food product management, and training in food safety. The process to register this food item got underway in 2020. The management of MUI halal certificates is one of Bunda Koja's activities. Six Bunda Koja products—tempe chips, tempe nuggets, nata aloe vera, aloe vera juice, and catfish brownies—are the targets of this activity to get halal certifications. The maintenance of halal certificates begins with participation in halal certificate socialization initiatives and support for filing halal certificate applications. An aquaponics farming system called "Fish Farming in Buckets" uses bucket media to raise fish while also using methods for growing vegetables. In 2020, this activity began. This

activity is a response to the shortage of land in cities and the community of South Rhino Swamp's unmet need for appropriate nutrition. This task is a component of the "All Elements of Catfish" task. Kale can be collected every three weeks, while catfish can be harvested every three months, all from a single bucket. The company puts together a bucket package with supplies, seeds, and food, each worth IDR 220,000. The company donated a total of 60 buckets to Bunda Koja in 2020. Activities to use catfish in different culinary products, such as catfish sticks, catfish bone chips, catfish nuggets, and catfish that have been shredded. At the end of 2019, the development of this SULE started. Aloe Vera Koja is an activity in which aloe vera plants are used to make two different things: nata and aloe vera juice.

4.2 Stages 2 and 3: Impact Mapping, Proving Impact, and Giving It Value

Impact mapping is the stage of determining the impact received by each primary stakeholder. This mapping is based on data obtained from interviews, discussions, and document reviews. Impacts are identified and evidenced by direct observation, document surveys, and stakeholder discussions. At this stage, the determination of impact indicators is carried out through evidence collection, determination of the impact duration, and assigning values to the impact (Figure 3, Appendix). After proving the impact is done by tracing the primary and secondary data above, the next stage is to give a value to the impact. Measurement indicators that are used for: digital marketing training are The registration fee for digital marketing training and BPOM technical support is The cost of following BPOM technical guidance and the cost of managing a BPOM certificate; Food handler training is the cost of attending food handler training; financial governance training is the cost of attending financial governance training; Pertamina Sehati School of Nutrition is the cost of attending Pertamina Sehati School of Nutrition training; The cost of procuring healthy food for children and The cost of improving the quality of healthy food for malnourished toddlers Food product registration at BPOM is subject to the BPOM registration fee if submitted to a private consultant; registration of MUI halal food products is subject to the HALAL registration management fee if submitted to a private consultant. All catfish parts are Additional income is generated by the All catfish parts business, catfish farming in buckets, fish farming in buckets, and the Aloe Vera Koja business.

4.3 Stage 4: Establishing Impact

Impact determination is carried out by compiling an estimate of the impact value arising from the activities carried out. This impact is isolated by the activities measured. The four measures for impact isolation determination are deadweight, displacement, attribution, and drop-off, [30].

(1) Deadweight

Deadweight is the percentage of the chances of an outcome being generated without the intervention of a company program. The deadweight level in Bunda Koja's analysis was set at zero because the activity was measured under controlled conditions and the respondents as interview speakers were positioned under control.

(2) Displacement

Displacement is the percentage of outcomes before the company's program intervenes. The displacement rate is set at zero because programs with similar activities to Bunda Koja have never been carried out where Bunda Koja is located.

(3) Attribution

Attribution is the percentage of the role of parties other than the company in achieving outcomes. This analysis determined that the attribution level was zero because the outcome of Bunda Koja was limited to the scope of impact of activities within the Bunda Koja Group.

(4) Departure

Drop-off is the annual rate at which the impact decreases. In this case, the drop-off rate on this analysis is zero because the precautionary principle in measuring the impact limits its determination to the period in which the impact occurs significantly. The following Table 1 (Appendix) contains the calculation of the impact of all the programs of Bunda Koja Grup starting from the basis of the calculation, the proxy used, to the impact value that can be determined.

4.4 Stages 5 and 6: Establishing the Value of the Investment and Calculating the SROI ratio

Before the SROI calculation, the total investment value of the company was calculated for the Bunda Koja Group. Table 2 (Appendix) represents the company's total investment in the Bunda Koja Group. Total investment (input) within 2018-2021 was IDR 298.500.000,-. After the inputs are identified, the next step is to project the present value of the impact value arising from all programs to the Bunda Koja Group. The data for this stage is taken from Table 3 (Appendix), the projected value

of the present value of the Bunda Koja program's impacts are shown as IDR 565,225,719.49.

The SROI ratio can be calculated by the following formula:

$$SROI\ Ratio = \frac{Present\ Value\ Impact}{Total\ Investment}$$

$$SROI\ Ratio = \frac{565.225.719,49}{298.500.000,00}$$

$$SROI\ Ratio = 1,89:1$$

5 Discussions

The purpose of this study was to calculate the social impact of a Pertamina Patra Niaga Integrated Terminal Jakarta CSR program using an SROI framework. The study contributes to advancing the social impact research of mineral resource companies by shedding light on the monetary value of the social impact of specific CSR activities by Pertamina Patra Niaga Integrated Terminal Jakarta. This novel approach could be one of the solutions to the problem of ambiguity in social impact that has plagued previous research in this area, specifically the lack of evidence in "measuring outcomes (not input)" of social activities. Also, our research adds to the evidence that Pertamina Patra Niaga Integrated Terminal Jakarta's CSR programs are financially and economically responsible, which has been limited to CSR research by a mineral resources company, [33].

Impact analysis using the SROI method of the Bunda Koja Group produces a figure of 1.89, which means every IDR 1,- investment in the Bunda Koja Group can produce a social impact of IDR 1.89,-. The investment of Pertamina Patra Niaga Integrated Terminal Jakarta has had a positive impact on the community development in Koja District, particularly for stakeholders such as Bunda Koja Group mothers and malnourished toddlers. The impact can be seen in increasing the capability of Bunda Koja cadre mothers in terms of mastering digital marketing, improving the quality of products for mothers of Bunda Koja Group by standardizing BPOM and Halal MUI, increasing knowledge and application of PSSN, and increasing the status of toddlers under the red line and malnourished toddlers in Koja District, which is the company's Ring 1 area, which is increasing knowledge of clean and healthy living behavior and improving the quality of healthy life, as well as increasing the income of cadre mothers.

SROI analysis aims to facilitate the achievement of corporate accountability to stakeholders. This analysis is evaluative, where the SROI numbers

produced and the mapping of impacts and the distribution of their values can be used as feedback in planning future CSR programs so that the positive impact of the program can be maximized. In terms of the distribution of impacts, the programs that contributed the most to stakeholders until August 2021 were the Pertamina Sehati School of Nutrition and Aloe Vera Koja activities. In addition to facilitating learning about Clean and Healthy Lifestyles, the Pertamina Sehati School of Nutrition can improve the health status of mothers and toddlers through Malnutrition and Under the Red Line. Cadre mothers who receive benefits in the form of PSSN training can also have a positive influence on their families and nearby communities, improving the quality of household health. In the meantime, ALOJA activities can bring in an extra IDR 38,400,000 per year for each cadre mother.

6 Conclusions

CSR implementation was conducted by Pertamina Patra Niaga Integrated Terminal Jakarta through the following programs: (1) digital marketing training, (2) BPOM technical support, (3) food handler training, (4) financial governance training, (5) Pertamina Sehati School of Nutrition, (6) registration of food products at BPOM, (7) registration of MUI halal food products, (8) all catfish parts, (9) catfish cultivation in buckets, (10) Aloe Vera Koja, following an assessment using the SROI ratio, providing a positive social impact to Bunda Koja Group. The stages of calculating the SROI ratio begin with defining the scope and identifying stakeholders, impact mapping, evaluating the impact and values of the activities, monetizing the impact value, establishing the value of the investment, and establishing impact. The implementation of Pertamina Patra Niaga Integrated Terminal Jakarta's CSR program has a good social impact on the Bunda Koja Group, namely in terms of increasing the capability of mothers in the Bunda Koja Group, improving the quality of products for mothers in the Bunda Koja Group, increasing knowledge of clean and healthy living behaviors, increasing people's income, and improving their quality of life. The implementation of CSR carried out at Bunda Koja Group hereby supports the achievement of Sustainable Development Goals (SDGs) numbers 1 and 3, especially in the context of no poverty and good health and well-being.

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References:

- [1] A. B. Carroll, "Managing ethically with global stakeholders: A present and future challenge," *AMP*, vol. 18, no. 2, pp.114–120, <https://doi.org/10.5465/ame.2004.13836269>.
- [2] P. R. Indonesia, Law of the Republic of Indonesia Number 40 of 2007 concerning Limited Liability Companies (Undang-Undang Republik Indonesia Nomor 40 Tahun 2007 Tentang Perseroan Terbatas 2007), [Online]. https://www.academia.edu/8106299/UNDANG_UNDANG_REPUBLIK_INDONESIA_NOMOR_40_TAHUN_2007_TENTANG_PERSEROAN_TERBATAS (Accessed Date: November 12, 2022).
- [3] R. Pérez, C. Dolz, M.-J. Miquel-Romero, and I. Sanchez, "How social, environmental, and economic CSR affects consumer-perceived value: Does perceived consumer effectiveness make a difference?," *Corporate Social Responsibility and Environmental Management*, vol.25(5), pp.733-747, <https://doi.org/10.1002/csr.1490>.
- [4] E. Guenther, H. Hoppe, and C. Poser, "Environmental Corporate Social Responsibility of Firms in the Mining and Oil and Gas Industries: Current Status Quo of Reporting Following GRI Guidelines," *Greener Management International*, vol. 53, pp.7–25, [Online]. <http://www.jstor.org/stable/greemanainte.53.7> (Accessed Date: November 14, 2023).
- [5] P. Nie, C. Wang, and Y. Meng, "An analysis of environmental corporate social responsibility," *Managerial and Decision Economics*, vol. 40, pp.384–393, <https://doi.org/10.1002/mde.3009>.
- [6] P. R. Indonesia, Law of the Republic of Indonesia Number 25 of 2007 concerning Capital Investment (Undang-Undang Republik Indonesia Nomor 25 Tahun 2007 Tentang Penanaman Modal).
- [7] P. R. Indonesia, Law Number 22 of 2001 concerning Oil and Natural Gas (Undang-Undang Nomor 22 Tahun 2001 Tentang Minyak dan Gas Bumi).
- [8] A. Buallay, "Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector," *Management of Environmental Quality: An International Journal*, vol. 30, no. 1, pp. 98–115, <https://doi.org/10.1108/MEQ-12-2017-0149>.
- [9] A. Fadillah and R. Suryawati, "The Effect of Sustainability Report on Financial Performance and Corporate Value (Case study on companies participating in ASRAT for period of 2015-2019)", <http://dx.doi.org/10.4108/eai.14-9-2020.2304460>.
- [10] G. Syamni, Wahyuddin, D. Abbas, and I. Ichsan, "CSR and Profitability in IDX Agricultural Subsectors," 2018, pp.511–517, <https://doi.org/10.1108/978-1-78756-793-1-00034>.
- [11] U. Idemudia and N. Osayande, "Assessing the effect of corporate social responsibility on community development in the Niger Delta: a corporate perspective", Table 1," *Community Development Journal*, Vol. 53, Issue 1, January 2018, pp.155–172, <https://doi.org/10.1093/cdj/bsw019>.
- [12] W. Akpan, "Between responsibility and rhetoric: some consequences of CSR practice in Nigeria's oil province," 2006, [Online]. <https://repository.globethics.net/handle/20.500.12424/2591110> (Accessed Date: July 13, 2023).
- [13] J. Nicholls, E. Lawlor, E. Neitzert, and T. Goodspeed, A guide to Social Return on Investment. in Cabinet Office, Office of the Third Sector, London. *The SROI Network*, 2012.
- [14] European Commission, "Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions: A renewed EU strategy 2011–14 for corporate social responsibility.," 2011, [Online]. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0390> (Accessed: July 13, 2023).
- [15] R. Peet and E. R. Hartwick, Theories of Development: Contentions, Arguments, Alternatives. *Guilford Press*, 2009.
- [16] I.-M. Dragu and A. Tiron Tudor, "Integrating Best Reporting Practices for Enhancing Corporate Social Responsibility," 2013, <http://dx.doi.org/10.13140/2.1.2240.8001>.
- [17] D. Robertson, "Corporate Social Responsibility and Different Stages of Economic Development: Singapore, Turkey, and Ethiopia," *Journal of Business Ethics*,

- vol. 88, pp. 617–633,
<https://doi.org/10.1007/s10551-009-0311-x>.
- [18] P. Watts, Corporate social responsibility: meeting changing expectations. Dorset: *World Business Council for Sustainable Development*, 1999.
- [19] N. Ansari, M. Farrukh, and A. Raza, “Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism,” *Corporate Social Responsibility and Environmental Management*, vol. 28, pp.229-238 <https://doi.org/10.1002/csr.2044>.
- [20] J. Brouwers, E. Prins, and M. Salverda, “Social Return on Investment: A Practical Guide for the Development Cooperation Sector,” *Utrecht, Context International Cooperation/ Creative Commons*, 60 pp, 2010.
- [21] L. Keane, E. Hoare, J. Richards, A. Bauman, and W. Bellew, “Methods for quantifying the social and economic value of sport and active recreation: a critical review,” *Sport in Society*, vol. 22, no. 12, pp. 2203–2223, <https://doi.org/10.1080/17430437.2019.1567497>.
- [22] I. Vogel, “Review of the use of ‘Theory of Change’ in international development. Review Report,” *GOV.UK*, no. Review Report for the UK Department of International Development., 2012, [Online]. <https://www.gov.uk/research-for-development-outputs/review-of-the-use-of-theory-of-change-in-international-development-review-report> (Accessed Date: November 12, 2022)
- [23] G. Lombardo, A. Mazzocchi, I. Rapallo, N. Tayser, and S. Cincotti, “Assessment of the Economic and Social Impact Using SROI: An Application to Sport Companies,” *Sustainability*, vol. 11, no. 13, Art. no. 13, <https://doi.org/10.3390/su11133612>.
- [24] A. O. Banke-Thomas, B. Madaj, A. Charles, and N. van den Broek, “Social Return on Investment (SROI) methodology to account for value for money of public health interventions: a systematic review | BMC Public Health | Full Text,” *BMC Public Health* 15:582, 2015, [Online]. <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-015-1935-7> (Accessed Date: November 12, 2022).
- [25] S. A. G. t., “The Guide to SROI,” *Social Value International*, no. Cabinet Office, Office of the Third Sector, London, 2009, [Online]. <https://www.socialvalueint.org/guide-to-sroi> (Accessed Date: November 12, 2022).
- [26] J. Jönsson, “Social Return on Investment (SROI), The Value Added For Families Before And After Using Solvatten in the Bungoma District in Western Kenya - Agroforestry Network,” no. Swedish University of Agricultural Sciences, Uppsala, 2011, [Online]. https://agroforestrynetwork.org/database_post/social-return-on-investment-sroi-the-value-added-for-families-before-and-after-using-solvatten-in-the-bungoma-district-in-western-kenya/ (Accessed Date: November 12, 2022).
- [27] K. J. Watson, J. Evans, A. Karvonen, and T. Whitley, “Capturing the social value of buildings: The promise of Social Return on Investment (SROI),” *Building and Environment*, vol. 103, pp.289–301, <https://doi.org/10.1016/j.buildenv.2016.04.007>.
- [28] D. Fujiwara, “A Short Guide to Social Impact Measurement,” *Simetrica*, 2014, [Online]. <https://www.simetrica.co.uk/resources-1> (Accessed Date: December 23, 2022).
- [29] N. King, “Making the case for sport and recreation services: The utility of social return on investment (SROI) analysis,” *International Journal of Public Sector Management*, vol. 27, no. 2, pp.152–164, <https://doi.org/10.1108/IJPSM-04-2013-0052>.
- [30] L. E. Davies, P. Taylor, G. Ramchandani, and E. Christy, “Social return on investment (SROI) in sport: a model for measuring the value of participation in England,” *International Journal of Sport Policy and Politics*, vol. 11, no. 4, pp. 585–605, <https://doi.org/10.1080/19406940.2019.1596967>.
- [31] R. K. Yin, Case Study Research: Design and Methods. SAGE, 2009.
- [32] R. Larsson, “Case Survey Methodology: Quantitative Analysis of Patterns Across Case Studies,” *AMJ*, vol. 36, no. 6, pp. 1515–1546, <https://doi.org/10.5465/256820>.
- [33] Isacowitz, J. J., Schmeidl, S., & Tabelin, C. (2022). The operationalisation of Corporate Social Responsibility (CSR) in a mining context. *Resources Policy*, 79, 103012, <https://doi.org/10.1016/j.resourpol.2022.103012>.

APPENDIX

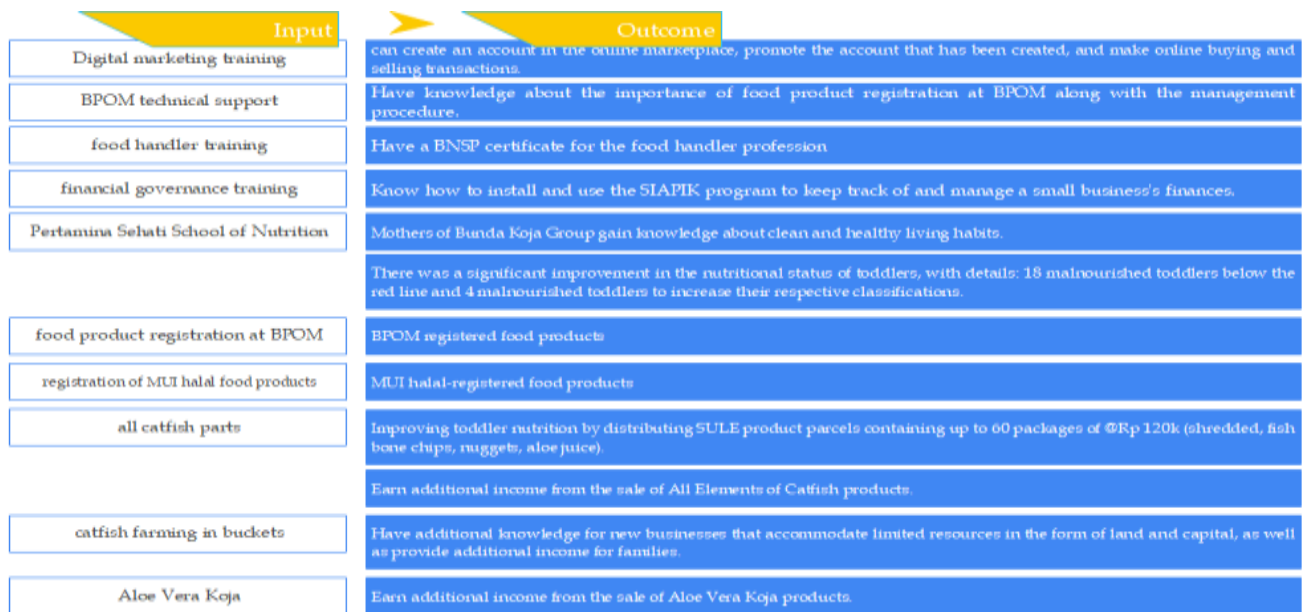


Fig. 3: Impact Map

Table 1. Counting the Impact of the Bunda Koja Group

Input	Impact Calculation	Impact Value (In Rupiah/ IDR)			
		2018	2019	2020	2021
Digital marketing training	The value of the benefits is equated with the cost of Digital Marketing training if you take part in training at a private consultant. Benefit value = 10 people x digital marketing training fee IDR 2.500.000,- x 4 meetings = IDR 100.000.000,-				100.000.000,-
BPOM technical support	Mothers of Bunda Koja Group have the opportunity to participate in Food Safety Training worth IDR 29,000,000,-, and the value of the benefits of this activity is in the form of NPWP management, which if submitted by external service providers, is IDR 300,000,-, NIB management of IDR 3,000,000,-, management of PIRT 6 Bunda Koja products IDR 18,000,000, - and follow SUDINKES Technical Guidance IDR 10,000,000,-. The total benefit received is IDR 60,300,000			5.000.000,-	10.000.000,-
Food handler training	One Cadre mother is included for this training to increase the capacity of the certified so that in the future they can share these skills with other cadre mothers. The impact value received is equivalent to the cost of attending training of IDR 3,500,000, - plus the impact value to share knowledge and skills with nine other cadre mothers = 9 cadre mothers x IDR 500,000, - = IDR 4,500,000,-. The total impact value of this activity is IDR 10,000,000				10.000.000,-
Financial governance training	The value of the benefit is equivalent to the cost of attending financial governance training for 10 people x the cost per person of IDR 1,500,000 = 15,000,000,-.			5.000.000,-	10.000.000,-

Input	Impact Calculation	Impact Value (In Rupiah/ IDR)			
Pertamina Sehati School of Nutrition (PSSN)	<p>The value of this training a day is 5 million per day x 10 days per month x 3 months = IDR 150,000,000,-.</p> <p>The training value of IDR 5,000,000 is obtained from the value of benefits in the form of:</p> <ol style="list-style-type: none"> 1. treatment costs that can be avoided by trainees if they do not apply PSSN. The value of the cost of treatment is set to be equivalent to the minimum cost of treatment to a general practitioner, which is IDR 100,000,-. The total participants of this training were 30 people. Total avoidable treatment costs = 30 x IDR 100,000,- = IDR 3.000.000,- 2. Honor resource persons per day and accommodation required for training per day is IDR 2,000,000,- 	150.000.000,-			
	<p><u>Year 2018</u></p> <p>The cost of improving the nutrition of toddlers until it reaches an increase in classification per child = IDR 300,000,-, so that the total value incurred is = 22 children x IDR 300,000, - = IDR 6,600,000,-</p> <p><u>Year 2019</u></p> <p>The distribution of catfish product parcels was 60 packages of @ IDR 120,000,-. The total impact value of this activity is = 60 x IDR 120.000,- = IDR 7.200.000,-</p>	6.600.000,-	7.200.000,-		
Food product registration at BPOM	Mothers of Bunda Koja Group have the opportunity to participate in Food Safety Training worth IDR 29,000,000,-, and the value of the benefits of this activity is in the form of: NPWP management which if submitted by external service providers is IDR 300,000,-, NIB management of IDR 3,000,000,-, management of PIRT 6 Bunda Koja products IDR 18,000,000, - and follow SUDINKES Technical Guidance IDR 10,000,000,-. The total benefit received is IDR 60,300,000			60.300.000,-	
registration of MUI halal food products	The value of benefits is equated with the cost of managing halal certificates through external consulting services worth IDR 10,000,000.			10.000.000,-	
all catfish parts	As of August 2021, 80 packages of SULE products have been sold (1 pack of shredded and 1 pack of nugget). The impact value is measured by the revenue from the sale, namely = 80 packages x IDR 80,000 x 3 months = IDR 19,200,000			19.200.000,-	
catfish farming in buckets	One bucket can produce these two products, namely kale harvested per 3 weeks, while catfish is harvested every 3 months. One bucket package along with equipment, seeds, and food is prepared by the company worth IDR 220.000,- per bucket. During 2020 a total of 60 buckets were given by the company to Bunda Koja. The harvest value of kale per bucket during 2020 = (number of weeks in a year 52 weeks / 3 weeks) x the value of one bunch of kale IDR 2,000,-.		62.380.000,-		
Aloe Vera Koja	Aloe Vera Koja produces two types of products, namely aloe nata and aloe vera juice. Aloe vera nata has not yet developed so the impact measurement is based on the sales of aloe juice products from 2018	38.400.000,-	38.400.000,-	38.400.000,-	38.400.000,-

Input	Impact Calculation	Impact Value (In Rupiah/ IDR)			
	to 2021. Production frequency: 1 month 2 times production where the number of units per production is 200 bottles. So that the number of sales in units per year is = 12 months x 2 times production x 200 bottles = 4,800 bottles. The value of the resulting product = 4,800 bottles x selling price per bottle of IDR 8,000 = IDR 38,400,000,-.				
Total Impact Value per Year		205.000.000,-	45.600.000,-	110.700.000,-	257.900.000,-

Table 2. Total Investment (Input) of Bunda Koja Group

Contributors		Value Of Contribution To Programs (In Rupiah/ IDR)			
No	Contributors	2018	2019	2020	2021
1	Pertamina Patra Niaga Integrated Terminal Jakarta	50.000.000,-	57.500.000,-	121.000.000,-	70.000.000,-
Investment/ Year		50.000.000,-	57.500.000,-	121.000.000,-	70.000.000,-
Total Investment (Input)					298.500.000,-

Table 3. Calculation of Present Value (PV) Impact of Bunda Koja Group

Information	Year			
	2018	2019	2020	2021
Impact value per year (IDR)	205.000.000,-	45.600.000,-	110.700.000,-	257.900.000,-
Dikurangi:				
<i>Deadweight</i>	0%	0%	0%	0%
<i>Displacement</i>	0%	0%	0%	0%
<i>Attribution</i>	0%	0%	0%	0%
<i>Drop-off</i>	0%	0%	0%	0%
Net Impact Value (IDR)	205.000.000,-	45.600.000,-	110.700.000,-	257.900.000,-
Discount rate (r=3.5%)	3.5%	3.5%	3.5%	3.5%
<i>Present Value Impact</i>	198,067,631.88	42,568,086.04	99,845,054.72	224,744,946.85
Present Value Total				565,225,719.49

Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

[†]Rindah Febriana Suryawati and Wahyu Firmandani have equally contributed to this work.

- Rindah Febriana Suryawati, carried out the SROI analysis and writing the original draft as well as responsible to review and editing become the final article.
- Wahyu Firmandani, has done the research literature review, draft publication articles, project administration as well as communicated to journal publisher and review the final article.
- Andri Akbar, has supported in data gathering.
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