# SOCIAL RETURN ON INVESTMENT (SROI) FRAMEWORK IN TELECOMUNICATION INFRASTRUCTURE IN BORDER AREA OF INDONESIA

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# SOCIAL RETURN ON INVESTMENT (SROI) FRAMEWORK IN TELECOMUNICATION INFRASTRUCTURE IN BORDER AREA OF INDONESIA
## (Kerangka Kerja *Social Return on Investment* dalam Pembangunan Infrastruktur Telekomunikasi di Area Perbatasan Indonesia)

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ABSTRACT

Infrastructure delivery on traditional procurement still rely on cost based performance. Realize that social impact mainly talk about outcomes, SROI has been accounted as are direct or indirect outcome that perform as new tools in engaging social value to the the table in the eye of investors and related stakeholder. Delivering public goods in border area of Indonesia has its own challenge to prioritize which one shall be selected out of ranges choices and criterion. Authority, goal and status are remaining as three important aspects of neighboring countries, the three shall be intriguing sensitive to all the issue relate to border line. Therefore, to support inter-regional connectivity in an integrated manner with infrastructure, as quoted from Nawacita this study attempt to structure the thoughts and suggest the conceptual framework of telecommunication infrastructure development in order to bring potential and each stakes of distinguish region and its phenomenon. As a result, BTS development conducted in 32 priority location using the generated framework and imply SROI as suggested tools. Consequently, to monetize the tangible benefits and costs several aspects, to that SROI analysis based only on monetized benefits costs.
**KEYWORDS:** SROI, BTS, Infrastructure, Social Value, Border

ABSTRAK

Pengadaan infrastruktur secara tradisional masih mengandalkan kinerja biaya. Namun dampak sosial tentang dampak kini telah dapat diperhitungkan dengan SROI seperti dampak langsung atau tidak langsung yang penggunaannya telah menjangkau investor dan pemangku kepentingan terkait. Pengadaan proyek berbasis kepentingan publik di daerah perbatasan Indonesia memiliki tantangan tersendiri untuk memprioritaskan mana yang harus dipilih dari berbagai rentang dan kriteria. Otoritas, tujuan dan status yang adalah tiga aspek penting dari kehidupan harmonis bertetangga dalam tataran negara, tiga hal ini sensitif terhadap semua masalah berhubungan dengan garis perbatasan. Oleh karena itu, untuk mendukung konektivitas antardaerah secara terpadu dengan infrastruktur, seperti dikutip dari Nawacita, penelitian ditujukan untuk membuat struktur pemikiran dan menyarankan kerangka konseptual pembangunan infrastruktur telekomunikasi dalam rangka untuk membawa potensi dan masing-masing wilayah beserta fenomenanya. Maka, pembangunan BTS yang dilakukan dengan menghasilkan 32 lokasi prioritas telah menggunakan kerangka yang dimaksudkan dan menggunakan SROI sebagai alat ukur yang disarankan. Karenanya nilai manfaat nyata dan biaya beberapa aspek. Kesimpulan yang dapat ditarik dari analisis SROI hanya dapat berbasis pada biaya manfaat menghasilkan uang.
**KATA KUNCI:** SROI, BTS, Infrastruktur, *Social Value*, Perbatasan

## INTRODUCTION

As describe by Watson et. al (2016) delivery of the built environment is rarely influenced by user needs and preferences, whereas public infrastructure shall take into account the wider value of a project over its entire lifetime, rather than traditional procurement based on cost. It is proposed that applied social value research in infrastructure facilitate the dissemination of post-occupancy to realize optimized design on user basis, also taking into account economic and environmental performance.

Consideration the effectiveness of SROI has been captured and measured the social value of the case infrastructures, buildings, housings and applied programs, however, critiques of SROI ability to consider the complex relationship between design, users of multiple types and units, and user group dynamics, was still an empirical agenda for social value research in the area. Thus, priority of the sociality of users as a dynamic and contextual community has generally not been set, but for social value research in still is represents as fundamental. Acknowledging the increasing importance of exploring the sociality of the user community and its social relations, both within and

between user groups and within and between user units, provides further traction for a social value research agenda in infrastructures.

Further, Cole et all (2008) enhance collective environmental control to benefit a community of users as a whole requires a considerable degree of communication, dialogue and sensitivity. The unique assortment of users occupying a certain structure, their varying levels of environmental know-how and the exclusive set of dynamic relations between them combine to produce an unequivocally contextual subject for social value research. Moreover, the majority of this niche area of research addresses user group dynamics solely as a mediator of the interaction between design and user, rather than investigating a mutual interaction between all three elements: design, user and context. Therefore, a social value is proposed to fulfilling this research gap by promoting thinking about communities of users, their social relations and the significance of user group dynamics.

On 2016, Yates et. al come with two definitions of SROI:

*Definition 1: a form of Cost-Benefit Analysis that requires Benefits and Costs to be assessed from double-, triple-, or quadruple bottom line perspectives so that outcomes and costs are defined comprehensively and in a socially responsible manner.*

*Definition 2: an analytical process, that may result in benefits/costs ratios, but that differs from CBA conducted by economists in that SROI often focuses on social value rather than social welfare. SROI methods may be simpler, faster, cheaper, and, some argue, more approximate.*

Likewise, Nicholls (2016) covers key aspect of SROI:

"*Social Return on Investment (SROI) is a framework for measuring and accounting for this much broader concept of value; it seeks to reduce inequality and environmental degradation and improve wellbeing by incorporating social, environmental and economic costs and benefits.*

*SROI measures change in ways that are relevant to the people or organizations that experience or contribute to it. It tells the story of how change is being created by measuring social, environmental and economic outcomes and uses monetary values to represent them. SROI is about value, rather than money. Money is simply a common unit and as such is a useful and widely accepted way of conveying value.*

*SROI is much more than just a number. It is a story about change, on which to base decisions, that includes case studies and qualitative, quantitative and financial information. An SROI analysis can take many different forms. It can encompass the social value generated by an entire organization, or focus on just one specific aspect of the organization's work ".*

Realize that social impact mainly talk about outcomes, in SROI are direct or indirect outcome that changes people's lives. Therefore, a set of tools to imply the impact shall be created in generating intangible to tangible outcome by quantifying event occurs as development impact to be measure in certain currency value, in this case number of Rupiahs involved. As to both private and public sector, SROI would remain as allocation decision making inherit to sustainable accounting and cost benefit analysis from the previous global approaches.

Two adjacent countries that lies side by side creating international borders, whether it shares the same mainland or waterways. As border, they both have long been a prominent theme in political geography: on the one hand, borders between states demarcate the territory and jurisdiction of states, with empirical common proposition on how borders shape the relations between citizens of neighboring countries (Mirwaldt, 2010).

In the matter, Oscar Martinez (1994) in Mirwaldt (2010) proposed a typology of borderlands based on the border's permeability and on the intensity of cross-border interaction: in alienated borderlands, borders are closed and cross-border contact is negligible. Co-existent and interdependent borderlands are characterized by higher degrees of cross-border contact. Finally, peaceful relations, economic interdependence and ample cross-border interaction prevail in integrated borderlands. However, Martinez points out integrated borderlands are extremely rare and can only be found in Western Europe that tend to be more stable and open than borders anywhere else in the world. These borders have undergone a functional transformation from dividing lines that were once closed and heavily policed and now been redefined as zones of exchange and interdependence. The transformation occurred as a result of two interlinked processes of the European integration process involved breaking down barriers; and role of organizations such as the Euro regions were established in order to promote cross-border networking.

Related to border issue, contact theory describes in Mirawaldt (2010) there are three favorable conditions for attitude change, which generate from: 1) Authority: the first condition concerns the human tendency to conform to majority opinion and to follow the leadership of authority figure; 2) Goals: interdependence or important shared goals promote good relations between two groups, whereas competitive relationships hinder them; 3) Status: it is beneficial when two groups have an equal or comparable social status. Along with these three aspects, Government of neighboring countries shall be

intriguing sensitive to all the issue relate to boarder line. Thus achieve by resolving nationwide problem of border with strong authorities, that consistent promote interdependency and comparable status of the region to their neighboring countries with acceleration of infrastructure development.

As the top priorities of ASEAN as Chong (2012) pointed out, is the creation of a conflict free social environment and healthy political atmosphere in the region that is vital for the thriving of trade as a vital component of strategies for economic growth and development. To that matter, solidarity amongst the leaders and the people, the relations of neighboring countries is a must. Thus include the present dispute over shared cultural icons and heritage should not be viewed in isolation from the overall relations in this case happened between Indonesia and Malaysia as Chong implied (2012).

Lukesova and Martincova research (2015) recall almost everyone belongs to a number of different groups and categories at the same time, that unintentionally actions have created layers of programming within ourselves, corresponding to different levels of culture. In particular the two mentioned in their work: national level according to one's country (or countries, for people who migrated during their lifetime); regional and/or ethnic and/or religious and/or linguistic affiliation level; gender level, according to whether one was born as a girl or as a boy; generation level, separating grandparents from parents from children; social class level, associated with educational opportunities and with a person's occupation or profession; and for those who are employed, organizational, departmental, and/or corporate levels according to the way employees have been socialized by their work organization.


*Figure 1 Level of Culture (Hofstede & Hofstede, 2006 mentioned in Lukesova and Martincova, 2015)*

With the illustration of culture level, we now aware of concluding a man as product of one culture was misplaced. Since one individual may inherit interaction of cultures not limited to clash of multi level cultures and civilizations, but also individual personalities.

In Dascher & Haupt research (2011) mentioned how border possibly boost trade that leads 1) higher wages in the sector providing services to cross-border shoppers; 2) higher rents due to the induced inflow of workers from the poor country's interior region. This apt individual from one country can shop in the other, yet may neither live nor work there. However, this intra-country mobility implies varies across individuals. Some are strongly attached to their native region, while others get in touch with people in new places easily. Thus shape the distribution of cross-border integration's benefits and costs between individuals and regions within either country.

Individuals who live in the borderlines also realize distinguish intercultural ability that determines the intercultural transaction costs of those involved in cross-border trading. Both sellers and shoppers need to become familiar with a different potentially conflicting, and set of social norms. Moreover, sellers have to adapt their strategies to the needs of customers with a different language while shoppers need to be aware of different legal rules. Finally, both shopper and seller must tolerate close contact with someone earning a very different income.

*Table 1 Infrastructure Rank in ASEAN Country 2016-2017(GCI, 2017)*

| | Indonesia | Malaysia | Thailand | Vietnam | Philippines |
|---|---|---|---|---|---|
| **Infrastructure** | **60** | 24 | 49 | 79 | 95 |
| Road | **75** | 20 | 60 | 89 | 106 |
| Rail | **39** | 15 | 77 | 52 | 89 |
| Sea Transportation | **75** | 17 | 65 | 77 | 113 |
| Air Transportation | **62** | 20 | 42 | 86 | 116 |
| Electricity | **89** | 39 | 61 | 85 | 94 |
| Mobile/Cellular | **38** | 27 | 55 | 40 | 65 |
| Fixed Line | **86** | 72 | 91 | 99 | 107 |

Based on the types of infrastructure, it can be seen that one of the infrastructure that could be improved is the telecommunications and informatics infrastructure. Telecommunication development in Indonesia is growing rapidly. Such a development can not be separated with the support of technology, especially electronic equipment. One of the electronic equipment used by telecommunications providers is the Base Transceiver Station (BTS). BTS serves to creates a network interface by sending and receiving voice and data, as well as informing the alarm for fault management. To serve the broader telecommunications networks and maintain quality of service, the telecommunication providers need a number of base stations in transmitting and receiving information. BTS as mobile telecommunications infrastructure is expected to be one of the drivers of progress in the border region, ranging from community development to support economic development, social, political and cultural.

This is in line with the recent Presidential Cabinet Program 2015-2019, Nawa Cita within KPU/USO in supporting inter-regional connectivity in an integrated manner with infrastructure, as quoted from Nawacita 3.2.5, namely the establishment of inter-regional connectivity

infrastructure that is integrated and develop infrastructure that supports the realization of investments in 50 % of Disadvantaged District Regions, border and island (DTPK) in 2019.

In building infrastructure, it is necessary to have indicators to determine the feasibility, for each aspect of financial feasibility, economic, and social. Therefore, an infrastructure project need to have optimum benefits for the community in addition to running basic functions. The method used for Value Engineering as an attempt to manage the basic functions as well as additional benefits gained by the new BTS population as a catalyst. Application of VE in infrastructure can also be carried out either at the stage of strategic planning as well as on stage can result in performance improvements for the best value for a project (Woodhead & Berawi, 2007; Abdul Rahman & Berawi, et. Al., 2008). However, VE studies conducted in the early stages of a project to provide benefits not only to reduce costs and conserve capital, but also building relationships in the team and improve constructability (Fanning, 2006).

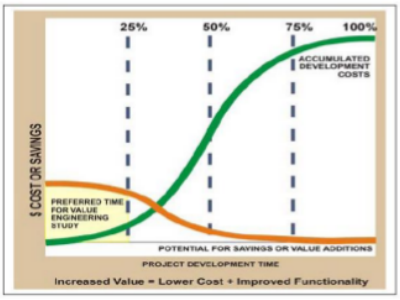


*Figure 2 Cost Reduction Opportunity (Fanning, 2006)*

However, the benefit of infrastructure constraints and the effects obtained with BTS development, still can not be defined. Therefore, additional indicator proposed to measure social values indicated by the presence of moving trust of infrastructure development in border area of Indonesia. SROI then presented to supplement VE as a concept that connect the gap in translating the basic benefit and the additional benefits of infrastructure development, in this case is the telecommunications infrastructure, namely the construction of BTS.

The flowchart to meet the criteria of an ideal social model proposed an effort to measure the value of the benefits of the presence of BTS to support the lives of people in priority locations.

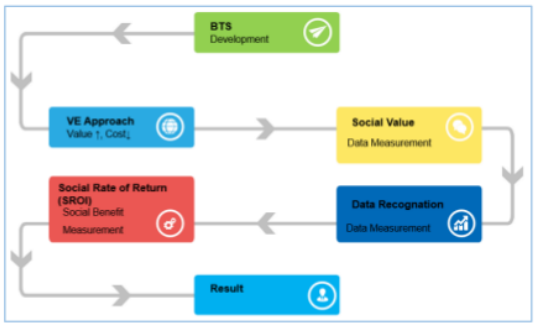


*Figure 3 Flow to Comply Criteria Ideal Business Model*

In the logic of the VE is used as a concept can serve telecommunications technologies that were presented to translate any community that will be awakened by the presence of the BTS, will be coupled with methods Social Rate of Return (SROI). SROI is a form of stakeholder evaluation combined with Cost-Benefit analysis tailored to the social purpose. SROI reveals how changes can be made and put a monetary value on these changes and compared with input costs required to achieve it. SROI purpose to measure the social outputs, results and impacts in order to obtain a variety of things.

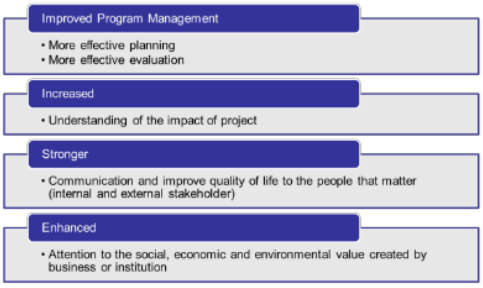


*Figure 4 Measuring Achievement in Social Output, Outcome and Impact with SROI*

Apparently, social output, results and impact can be quantified by SROI as a measuring method. SROI in the broad framework is believed to be the maturation of the management concept to build physical and social infrastructure in order to generate the planning and evaluation process more effective. SROI is also required by the various parties involved in the implementation of the BTS development impact of this awareness not only in the physically, but as a means of change that lead to improved quality of life with the fulfillment of open information technology and information access. Furthermore, SROI can also represent an increase in the strength of a community in terms of inward and outward looking society with a strategic position of these border and despair regions. All this came from the era of information to the community and new values that

emerged through the presence of BTS in the lives of the people so as to create a sensitivity to the social, economic and environmental brought closer to communications and technology.

Development of the BTS can increase the quality of life due to the current phenomenon that telecommunication is a matter of everyday life, and even has become a necessity for every individual. Telecommunications services and its support provide benefits to many parties, not just as a means of consumption in connecting kinship between regions, but also can be a window of opportunity by community groups in carrying out their functions and role in the social order as businessmen, housewives, students and even for children. Each group then has different interests and priorities for utilization of communication technologies, ranging from the support means to learn, work and do business.

Improving quality of life can be seen with the development of BTS to one group of people, for example, for farmers, with their telecommunications services, farmers can monitor the reasonable price of the harvest without having to conduct a survey or a physical meeting which would cause transportation costs especially for region in very remote areas. This suggests presence of information services to facilitate access to remote communication between individuals and can increase the cost and time efficiency in various activities.

Therefore, to measure the value of social benefits construction of base stations using SROI is expected to measure the readiness of a border area in the region for infrastructure development by analyzing the extent of the positive, neutral and negative presence impact of the BTS to the social and economic life of society and would reduce the inequality and hardship in the area to access the information and enjoy communication services.

## METHOD

Development of this research was conducted with initial aggregate research that was perform by proposing model based on secondary data (local authorities, national agency for border management, statistic bureau, geospatial information agency, previous studies about border conflict and management, conceptualization experiences from stakeholders), model testing in five generated priority location (Focus Group Discussion, In-depth Interview, Survey, Observation Participatory), Finalization model (data processing, data analyzing, and data interpretation), and finally give recommendation within priority location of where Base Transceiver Station (BTS) shall be allocated in the remote area throughout Indonesia.

Each priority location has different characteristics from one place and another place, given different typologies with region in the society. Hence, the emergence of BTS tower span-new things in the life of society, allowing the potential that exists in the community to develop. The potentials are not only limited natural resources, but also human resources. Groups of people with different interests and motives will emerge in line with technology developments. It is necessary to explore the potential community groups in question and the range of their interest in this information technology. To then be made priority information technology needs can be arranged so that the indicators of success a BTS tower construction at the location of priority.

### *SROI Methodology*

Matthew, Millo, & Barman, 2015 reported the social return on investment (SROI) accounting and reporting system is a new approach to communicating social and environmental value creation and estimating worth. SROI provides a tool allowing investors (or donors) to evaluate the pro-social impact of a potential capital investment or grant in terms of specific stakeholder outcomes. The promise of the SROI lies in its ability to translate disparate stakeholder benefits into a common unit of measurement by constructing a monetary equivalent for each benefit and combining into an aggregate valuation (Cooney & Lynch-Cerullo, 2014).

Cooney (2016) also implied, SROI has the potential to allow investors to compare many disparate projects in terms of volume of social value creation and invest accordingly. To the idea, Lamont (2012) agreed that SROI is an evaluation tool that exists at the crossroads of categorization and legitimation dynamics. Cooney (2016) added SROI effort is not one where managers merely compile neutral facts about stakeholders but play a role in creating certain visibilities, which in turn can potentially mobilize resources to new constituencies.

Originally develop in mid 1990s by the Roberts Enterprise Development Fund (REDF) in the US, Social Return on Investment, SROI argue to be a social impact methodology that allows non-profit organization wider value of their work by evidence (KJ. Watson et al, 2016). It is now stressed to the stakeholder engagement using standardize methodology as it evolved in recent work of New Economic Foundation (NEF) in the UK (Nicholls et al, 2007). As Nicholls et al (2012) refer SROI method however presenting intangible outcome as commonly recognize unit of value that pin point the potential to ensure user perspective to be accounted in the decision making.

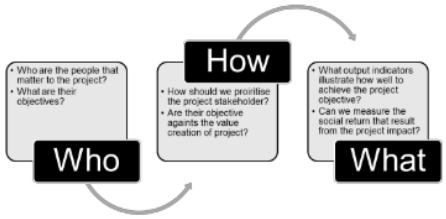


*Figure 5 Society Life Quality Improvement through BTS Development*

Furthermore, SROI analysis follow a more comprehensive approach as far as impacts are considered related. The latest approach is to use the NEF model, trying to measure and quantify the impact in the form of nominal for all groups of stakeholders in order to achieve an overall assessment. Here is a stage of the SROI analysis:


*Figure 6 SROI Stages (Adopted from: www.thesroinetwork.com)*

Align to that, Watson and Whitley's (2015) forthcoming study describe in detail methodology consider of:

1) Establishing Scope and Identifying Key Stakeholder
2) Mapping Outcomes
3) Evidence Outcome and Giving Them a Value
4) Establishing Impact
5) Calculating SROI
6) Reporting, using and Embedding

Thus result in a qualitative comparison of social value of the case of each priority location then a framework of how to cope social impact as an integrated assessment of infrastructure development then shall be measure its social value to be imperative judgment. Whereas principle of social value given by Social Value International (Nicholls, 2016) include: 1) Involve stakeholders; 2) Understand change; 3) Do not over claim; 4) Only include what is material; 5) Value what matters; 6) Be transparent; and 7) Verify the result.

## DISCUSSION

According to Gargani (2017), social investors are also concerned with non-pecuniary value, matters of the heart, which is the complementary dimension on the right. Wellbeing, happiness, fulfillment, satisfaction, purpose, engagement, and meaning are examples of program outcomes that have value to people in the absence of real markets in which they can be bought and sold.

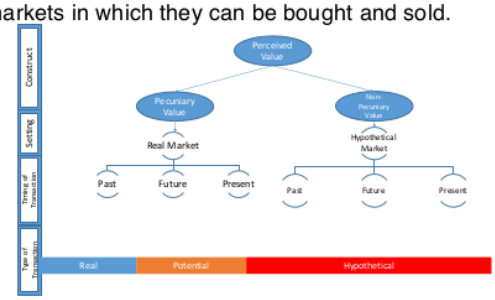


*Figure 7 Conceptual Model of Value for Social Investors*

Nevertheless, SROI is designed to strip away much of the empirical detail captured in the qualitative and quantitative stages of the methodology, including rich post-occupancy feedback about the building design, in order to place a monetized value on the identified social outcomes and produce the financial ratios.

As a notion from Yates & Marra (2016) Social Return On Investment (SROI) is a form of evaluation that offers answers to these questions of evaluation design, intent, and utilization, via mechanisms such as Pay for Success (PFS) and Social Impact Bonds (SIBs). SROI attempts to use carefully sourced information on resources input, activities enacted, processes inspired, and outcomes attained to formatively evaluate societal enterprises. Moreover, SROI is designed to stimulate funding by private as well as public entities of innovation in, and wider provision of, programs for remediating or preventing suffering and fulfilling human potential. Both criticized SROI was being warmed-over Cost-Benefit Analysis (CBA), a well-established form of cost-inclusive evaluation used widely.

Although the SROI shared CBA models with inclusion of multiple stakeholders in the evaluation broad social benefits, Cooney (2016) claims that SROI calculations depart from CBA at two key junctures: benefits side of the CBA ratio typically follows a social accounting approach in which benefits are calculated for all of society, in SROI the range of stakeholders included is flexible and can be as narrow as a single beneficiary of focal interest; boundary work is eliminated in the denominator of the SROI, as only one stakeholder is included on the cost side: the investor.

Referring to Cordes (2016), CBA and SROI analysis are most easily applied to situations in which the underlying objective is to improve allocation of resources providing "public goods" and/or correcting market failures. These approaches perform to accommodate the pursuit of decision-making made with reference to multiple goals.

Yates & Marra (2016b) also share their view on SROI by having outcome frameworks using meta evaluation whereby stakeholder prospective

from different point of view describe due to their Resources Consumed by SROI or cost of SROI; and Outcome Caused by SROI or benefit of SROI in certain amount of Rupiah on this study. Next table suggest what Yates and Marra has been suggested. This study need to be compiled with further research due to social valuation data to be adapted as a whole.

*Table 1 Resources and Outcome Framework for Meta Evaluation of SROI (Adopted from Yates & Marra, 2016b)*

| Stakeholder Perspective | Cost of SROI | Benefit of SROI |
|---|---|---|
| Government | Rp | Rp |
| Investors | Rp | Rp |
| Program Service Provider | Rp | Rp |
| Consumers | Rp | Rp |
| Contributor to Funding | Rp | Rp |
| Total Resources, Benefit | Rp | Rp |
| Net Benefit | Rp | |

Fischer and Richter (2016) pay attention to SROI and PFS fields have contributed greatly to the discussion of outcomes in the social domain and have each provided elements of framework for maximizing social benefit. Further, combining retrospective and prospective elements, the field stands to not only better understand the nature of social returns but also increase the resources dedicated to the most promising models to improve well-being and deliver social value. To these engagements, the attributes of conventional program evaluations such: multiple stakeholders, questions of interest, issues of measurement, and designs require a comparative stance to assess the counterfactual.

According to Cooney (2016) new SROI valuation method lies on its investor perspective across the social sector. It is utilized not just by the impact investors active in capital markets but also by traditional philanthropic and public sector funders whose funding streams are competitive and seek out high performing nonprofits in efforts to invest in what works and make progress on long standing social problems.

In providing a common unit of impact measurement SROI allowing comparison of programs, companies and initiatives working across a wide variety of impact areas. It has focused on the challenge of standardization. First initiation stage includes developing standardized models for the SROI calculation. Then it will affect in delimiting the salient stakeholders for a given organization or initiative, second, understanding how the intervention or enterprise creates benefits for each stakeholder, and finally, calculating a monetization of the benefits across stakeholders. A simple SROI benefits/costs ratio is calculated by dividing the sum of the benefits for each stakeholder for each year for which those benefits are projected, discounting future benefits to the net present value using an appropriate discount rate to account for the time value of money, using standard financial modeling techniques, and dividing by the present value of the investment cost. Thus determine the boundary of who is in and who is out of the valuation, this what makes the SROI differs from other methods at this stage of its development.

Coherent to that, Pollitt (2013) mentioned how SROI approach to calculating costs takes an investor view, rather than a social accounting, perspective. Therefore, logics of effectiveness, markets, and efficiency are bulk into the metric. The potential social benefits of a given intervention are divided by the cost of the investment to allow for a comparison of the relative social return available for a given amount of money invested. Pollitt also convinced that SROI is structured on a logic of cost-efficiency — a rubric in public investment.

However, calculating SROI metrics allow public or private funders and capital investors to compare value generation per dollar input across organizations working within a given sector that also allows some apples to oranges comparison across subsectors. Such versatility in commensurability across heterogeneous interventions could provide the analytic leverage to increase the efficiency of public, philanthropic and impact investor capital flows such that high performance interventions (with higher SROIs) are easily recognizable and therefore have access to the capital needed to scale their social impact.

Thus, SROI offers the illusion of precision, with careful calculation of valuations, counterfactual deductions and discount rates, but ultimately delivers only a metaphor of impact, not an exact measure. Case studies show that a SROI model which may make sense for one intention (gaining public funding) focused on one narrow set of stakeholders, (e.g., government), may be less useful for other stakeholders of the evaluation, such as the organization itself. In contrast, Lamont (2012) expect SROI to be the tools of evaluation that considered from the angle of profit maximization. Essentially, it undermines measureable gain from the individual investor, rather than an exercise in civic solidarity.

Although, from the standpoint of nationalism, the border region is considered necessary to have BTS using any of the budget required, but not all

border areas meet the ideal criteria defined business model. Therefore, priority is determined by weighting 32 locations using the indicators: 1) Institutional Effectiveness; 2) Purchasing Power Society; 3) The quality of human resources; 4) Infrastructure which then generates rank of 32 priority locations as described in the following table.

*Table 2 BTS Development due to Priority*

| Ranking | District |
|---|---|
| 1 | City of Batam |
| 2 | Serdang Bedagai |
| 3 | Berau |
| 4 | City of Jayapura |
| 5 | Pasir |
| 6 | Ketapang |
| 7 | Sanggau |
| 8 | Sambas |
| 9 | Sintang |
| 10 | Malianau |
| 11 | Kapuas Hulu |
| 12 | Nunukan |
| 13 | Kupang |
| 14 | Sangihe Island |
| 15 | City of Tidore Island |
| 16 | Bengkayang |
| 17 | Talaud Island |
| 18 | Boven Digoel |
| 19 | Timor Tengah Utara |
| 20 | Rote Ndao |
| 21 | Keerom |
| 22 | Halmahera Barat |
| 23 | Buru Selatan |
| 24 | Alor |
| 25 | Malaka |
| 26 | Halmahera Timur |
| 27 | Yapen Island |
| 28 | Maluku Tenggara Barat |
| 29 | Mahakam Ulu |
| 30 | Aru Island |
| 31 | Maluku Barat Daya |
| 32 | Supiori |

Therefore, the SROI framework suggested for Telecommunication Infrastructure Development identify 9 key steps that compromise in the next illustration.


*Figure 8 Dynamic Conceptual Framework*

This conceptual framework was leverage of current knowledge of SROI. It will remain as dynamic flowchart, therefore, it has no arrows nor boundaries to limit the steps, if one step still is needed for evaluation, the other steps would remain and consolidated to have it all SROI methodology remain as one. Arce-Gomez et. al study (2015) has been adopted to expand this research.

Firstly, Step 1 begin with Screening to identify public involvement and to have a description of the planned intervention as well as understanding the ground issues and possible impacts.

Then, Step 2 Community profile (integrated) note a more accurate gauge can be formed of how the planned intervention may impact local communities, ensuring results that are significant and relevant. It is during this step that the baseline aspects of the intervention are articulated, which geographically identify the communities who may be affected.

Afterward, Step 3 Scoping (integrated) Scoping involves identifying the breadth of potential social impacts, or issues, associated with a planned intervention in order to identify the areas that require further and detailed assessmen

Next, Step 4 Assessing impacts (expanded and integrated) After identifying the most significant impacts, the next step requires the assessment of each impact in order to understand the implications and effects each may have on a community. There are three interdependent steps: investigating probable impacts (direct and associated); estimating responses to impacts; and determining secondary and cumulative impacts.

Follow by Step 5 Developing alternatives (integrated) It is important in any social impact assessment to explore alternative ways of carrying out a planned intervention as a mechanism to avoid any unavoidable impacts identified in earlier steps. This step is basically a redesign in order to reduce or remove negative impacts.

Then, Step 6 Mitigation (enhancement) In an ideal situation, any negative impacts of a planned intervention should be avoided. Mitigation involves minimizing or reducing any negative impacts, and where this is not possible, to provide compensation to affected parties.

Follow by Step 7 Monitoring which involves designing a system that will allow the proponent to keep track of social impacts and to determine the accuracy of the impacts according to initial predictions. It is including additional activities for during this step that unanticipated impacts may arise, and thus it is imperative at this stage to compare what was projected with what is occurring.

Then, Step 8 Management and Evaluation. Management is based on the actual implementation of the planned intervention, ensuring that the project proceeds as designed according to the outcomes of the previous social impact assessment steps. Whilst Evaluation is needed to understand how well the social impact assessment process has been implemented, the areas that need improvement, and to design improvement plans for the identified areas.

Finally, Step 9 Actuating is based on implementation of the planned intervention, ensuring that the project proceeds as designed

according to the outcomes of the previous assessment steps, therefore in this step action such as set up a business incubator or other tools to set up the sustainability of the program shall be created to add value to the BTS development.

However, for the shorthand of database on valuation data based on previous study, this research suggested further improvement by acknowledging post-development program of BTS to be the basic data to the remaining BTS station that soon to be developed.

## CONCLUSION

According to its founding father, REDF, SROI has been designed as the focal fiscal beneficiary that could serve two important services relative to SIBs. First, SROI may calculated as a public savings over costs could provide an easy way to compare potential SIB interventions. Secondly, because SROI relies on proxies to build its valuation, using it to facilitate deal flows in the SIB space also could highlight which are the best, most effective interventions for specific social problems. Because the SROIs are built on proxies, these SROIs might serve to educate all sides of the market (government funders, practitioners and investment banks) about best practices in a given intervention area.

Nowadays, SROI remains a powerful device by invoking the language of business and rigor of economic analysis including in this set of case BTS development. However, SROI metric advances a claim for the worthiness of investments in marginalized populations or causes. Given that the SROI metric provides a tool to tell a multifaceted story of value creation, whereby SROI still suggests that its real utility lies in the legitimation sphere and not the commensurability aims that have hitherto been the focus of the efforts of the SROI advocates.

In the case of intangible benefits or costs, if enough information is available to monetize the tangible benefits and costs several conclusions may be drawn from a SROI analysis based only on monetized benefits costs: (1) it may be that the program or social enterprise that gain a positive SROI on the estimated monetized benefits and or costs basis, though intangible benefits make the overall SROI even greater than the calculated SROI; or (2) it may be that the program or social enterprise gain a sub-par SROI based on benefits and costs that can be estimated. In the latter case, one can use break-even analysis to infer how large the intangible benefits would need to be in order to achieve an adequate SROI.

In practice, while it is difficult enough to devise quantitative measures of the outcomes of programs and activities undertaken by nonprofits, it is even more challenging to translate such outcomes into dollars and cents. For some outcomes, this may not be feasible, and considerable disagreement can arise about how the outcomes can, or even should, be translated into Rupiah or other currency equivalents in defining priority of telecommunication infrastructure (BTS) development in 32 selected priority area in border line of Indonesia.


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