

Regional Case Study

Measuring the Satisfaction Index of Bumi Rasa Program Using Survey Method: A Case Study Damar Village, East Belitung Regency

Retno Suryani^{1*}, Nugroho Budi Susilo², Mohamad Ridhwan², Firna Nabila¹,
Nadya Suci Fauzul Azhima¹, Annisa Sila Puspita³

¹PT Sucofindo (Persero) Semarang, Kabupaten Demak, Jawa Tengah 59563, Indonesia

²PT. Timah Tbk, Bangka Regency, Bangka Belitung 33121, Indonesia

³Environmental Sustainability Research Group Department of Environmental Engineering, Faculty of Engineering, Universitas Diponegoro, Semarang 50275, Indonesia

*Corresponding Author, email: retno.suryani@sucofindo.co.id



Abstract

Bumi Rasa is a community empowerment program conducted by PT. Timah Tbk Primary Tin Production Unit. This community empowerment is undertaken in the Damar village, East Belitung Regency. The program consists of several programs, namely catering, stationery, traditional cakes, cleaning services, and laundry. The Bumi Rasa program has a significant impact on the economic and environmental development of the village. Therefore, this study analyzes the satisfaction level of the program using the satisfaction index survey method. This study aims to measure the satisfaction level of the recipients of the community development program. The Bumi Rasa program received a satisfaction index of 3.06 from the community, which converted to a satisfaction index of 76.67, indicating that the community is very satisfied with the program.

Keywords: Bumi Rasa, satisfaction index; sustainability

1. Introduction

Community development is an effort to strengthen communities by prioritizing actions and perspectives in social, economic, and environmental development (Bennett et al., 2018). However, community development often fails to produce satisfactory results. Failed community development programs must be more sustainable or significantly benefit the community (Dodds et al., 2018). These failures can be caused by inappropriate programs, selecting the wrong partners, or ineffective monitoring and evaluation (Bagus et al., 2019). Efforts to avoid failures in community development include selecting appropriate and relevant programs to meet community needs, selecting suitable partners who are involved in the process, and implementing effective monitoring and evaluation to measure the impact and improve programs (Powell et al., 2017). Monitoring and evaluation were essential in achieving community development programs' success (Sulemana et al., 2018). It was necessary to measure the achievement of goals, analyze shortcomings that need improvement or good things that need to be maintained, and accommodate criticism or suggestions from program recipients. In addition, with regular monitoring and evaluation, obstacles that arise during program implementation will be identified and resolved more quickly (Valaitis et al., 2017).

Many researchers have conducted monitoring and evaluation of community-based programs (Flor et al., 2020; Trani et al., 2022; Scott et al., 2018; Belizan et al., 2019). The study conducted by Belizan et al. (2019) discusses the barriers and facilitators in implementing and evaluating community-based interventions to promote physical activity and a healthy diet in Argentina. This research uses mixed methods by analyzing survey and interview data from policymakers, healthcare providers, and community members involved in the program. The results show that the main facilitators include social solid and institutional support. In contrast, the main barriers include a need for more funding and human resources and a lack of coordination among various stakeholders in the program (Belizan et al., 2019). This research provides valuable insights for practitioners and researchers in designing, implementing, and evaluating community health intervention programs in developing countries like Argentina. Additionally, Trani et al. (2022) evaluated the impact of the Community-Based Rehabilitation (CBR) program on access to services for people with disabilities in Afghanistan. This research used a survey method to collect data from 3 provinces in Afghanistan, including interviews with people with disabilities and their families and observations of the accessibility of healthcare and rehabilitation facilities. The results show that the CBR program has improved access to healthcare and rehabilitation services for people with disabilities in Afghanistan (Trani et al., 2022). However, various challenges and barriers to implementing the CBR program exist, such as a lack of community support and cultural differences in views on disability. This research has important implications for developing CBR programs in developing countries like Afghanistan and improving access to services for people with disabilities. However, there is no research that conducted to measure the community satisfaction index. It is a quantitative monitoring and evaluation method for community development programs (Chen et al., 2020). The community satisfaction index survey is essential because it can describe the level of community satisfaction with the program being implemented (Kim and Park, 2017). In this case, the community satisfaction index figure can provide information related to the community's assessment of the overall program, program management, and program distribution and services. In addition, the community satisfaction index survey can also be a space for feedback, criticism, or suggestions for improving the quality of community development programs in the future (Richardson et al., 2017).

This study aims to measure the level of satisfaction of the recipients of the community development program conducted by PT. Timah Tbk Primary Tin Production Unit. As a tin mining company, this company is committed to carrying out community development programs around its operational area—one of the community development programs that PT has implemented. Timah Tbk Primary Tin Production Unit is Bumi Rasa, which consists of several programs, including catering, office supplies, snacks, cleaning services, and laundry. This study is expected to provide feedback, criticism, and suggestions to improve the quality of community development programs in the future.

2. Methods

The method used in this study is Sampling Technique and Community Satisfaction Index. The survey was conducted in August 2022. A sampling technique was used to select a sample of the community to be interviewed in the community satisfaction index survey. Meanwhile, Community Satisfaction Index was used as a measurement tool to assess the level of community satisfaction towards the community development program implemented by PT. Timah Tbk Primary Tin Production Unit. This method involves using questionnaires to collect data from representatives of groups receiving the program. The questionnaire contains a series of questions related to community development programs implemented by the company and will be used to measure the level of community satisfaction towards these programs.

2.1 Sampling Technique

The survey respondents were selected from community group representatives who received community development programs from PT. Timah Tbk Primary Tin Production Unit. Data collection

was carried out using interview techniques with a guided questionnaire. The questionnaire to calculate the community satisfaction index was designed with closed-ended questions using the Likert scale. The Likert scale is a measurement tool used in research to measure a person's attitudes, opinions, or perceptions towards a particular topic or statement (Ho, 2017). The scale consists of a series of statements that are scored or weighted, and respondents are asked to indicate their level of agreement or disagreement with the statement using a range of scales (Taherdoost, 2019). The Likert scale usually consists of five or seven scales, each with different descriptions such as "strongly agree," "agree," "neutral," "disagree," and "strongly disagree". The Likert scale is commonly used in social research, psychology, and customer satisfaction surveys (Altinay et al., 2019). In addition to closed-ended questions to calculate the community satisfaction index, the questionnaire has several open-ended questions to gather additional information supporting quantitative data.

2.2 Community Satisfaction Index

In this study, the community satisfaction index is calculated using the calculation technique outlined in Decision of the Minister of State Apparatus Empowerment No. KEP/25/M.PAN/2/2004, where the weighted average is computed for each component, followed by the calculation of the index value. Then calculate the value of the community satisfaction index using **formula (2)**.

$$\text{Weight average value} = \frac{\text{Total weight}}{\text{Total elements}} \quad (1)$$

$$\text{Index} = \frac{\text{Total perception value per element}}{\text{Total elements}} \quad (2)$$

The Index of Public Satisfaction is a number that represents how satisfied or dissatisfied the public is with a service or product provided by the government or a company. That makes it easier to understand that the Index of Public Satisfaction is divided into four classes from 0 to 100. Its assessment result will be multiplied by 25 to fit into those classes to classify the Index of Public Satisfaction value. Then, the reduced Index of Public Satisfaction will follow the Decision of the Minister of State Apparatus Empowerment No. KEP/25/M.PAN/2/2004 is divided into four classes from the lowest to the highest score. Therefore, the existence of those classes makes it easier to interpret the value of the Index of Public Satisfaction, thus providing a more straightforward and more structured overview of how satisfied or dissatisfied the public is with the service or product provided by the government or a company.

$$\text{Classification} = \text{community satisfaction index} \times 25 \quad (3)$$

Table 1. Interpretation of community satisfaction index

| No. | Range Interval | Description |
|-----|----------------|----------------|
| 1. | 0-25 | Dissatisfied |
| 2. | 25-50 | Less satisfied |
| 3. | 50-75 | Satisfied |
| 4. | 75-100 | Very satisfied |

3. Result and Discussion

The respondents of the survey to measure the community satisfaction index of the "Bumi Rasa" program recipients for community development by PT. Timah Tbk Primary Tin Production Unit are 25 people, consisting of 3 respondents or 12% aged <25 years old, 13 respondents or 52% aged 26-45 years old, and 9 respondents or 36% aged 46-65 years old, with no respondents above 65 years old. Based on education level, 4 respondents or 16%, have an elementary school background, 4 respondents or 16% have a junior high school background, 12 respondents or 48% have a senior high school background, 4 respondents or 16% have a diploma background, and 1 respondent or 4% have a bachelor's degree background. Regarding profession, 6 respondents or 24%, work in the private sector, 4 respondents or 16%, work in the business sector, and 15 respondents or 60%, work in other professions (including village-owned catering, traditional cake-making, office supply cleaning service, and homemakers).

The general profile of respondents, such as age, education, and profession, is significant to be collected in conducting surveys or research (Yousaf et al., 2020). These data can provide important information in analyzing and interpreting surveys or research results. For example, the age of respondents can provide information about the characteristics of age groups that are most satisfied or dissatisfied with a service or product provided (Ingaldi and Ulewicz, 2019). Similarly, education data can provide an overview of the characteristics of respondents and their understanding of the service or product provided (Sheehan, 2018). Meanwhile, information about the profession or occupation of respondents can provide a picture of their characteristics and the influence of their profession or occupation on their perceptions or views of the service or product provided (Kim et al., 2017). That helps formulate appropriate recommendations or advice according to the needs and characteristics of the respondents.

3.1 Satisfaction Index of Overall Community Program

The satisfaction index of the community towards the program is measured based on the program's relevance to the community's needs, including existing problems and potential, program benefits, and program sustainability (de Vries & Pool, 2017). The survey results related to the program's relevance to the community's needs, including problems and potential, presented in **Figure 1 (a)**, indicate that community development programs provided by PT. Timah Tbk Primary Tin Production Unit, especially for Bumi Rasa, are considered less suitable by 24% of respondents, while 60% and 16% consider the program relevant and highly relevant, respectively. The majority of respondents agree that the community development program provided can provide solutions to problems and develop their potential.

The community satisfaction index measures the program's benefits, such as increasing knowledge, skills, environmental quality, and income. 60% of respondents stated that the community development program provided by PT. Timah Tbk Primary Tin Production Unit to Bumi Rasa increased their knowledge, and 16% considered it significantly increased. The program also increased skills (56% and 36%) related to catering management, processing traditional cakes, and community social activities. Meanwhile, 20% of respondents felt that the program did not significantly improve environmental quality, but 5% and 32% said the program improved and improved environmental quality considerably. Additionally, 60% and 36% of respondents also reported increased income. The community satisfaction index is also measured based on the program's sustainability, analyzed by the continuity of the program provided and the community's commitment to continue running it.

Furthermore, based on the sustainability survey of Bumi Rasa presented in **Figure 1 (c)**, 4% of respondents consider the program less sustainable, 36% believe the program is highly sustainable, and 60% of respondents consider the program to be sustainable. It indicates that the community development programs provided are always interrelated. Meanwhile, the survey results show that 28% of respondents stated to continue operating the schedule independently without guidance from PT. Timah Tbk Primary Tin Production Unit, and 28% are prepared to run the program independently. The readiness to be independent is high due to the community's initiative to develop Bumi Rasa. Thus, respondents admit to requiring assistance from PT. Timah Tbk Primary Tin Production Unit. Similar to the commitment to maintaining program sustainability, respondents also admitted to sharing the knowledge and skills gained during program implementation with others, at least with family, neighbors, and the surrounding community.

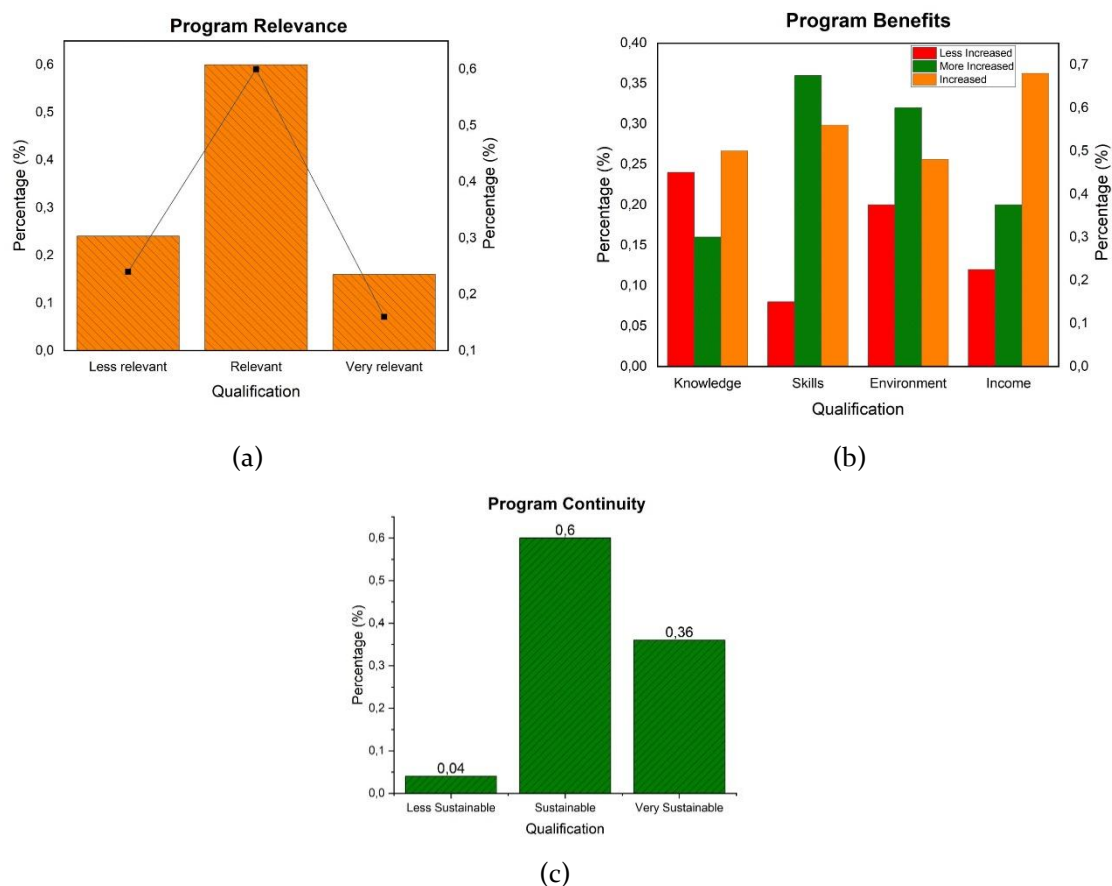


Figure 1. Survey results (a) Program relevance; (b) Program benefits; (c) Program continuity

The converted satisfaction index for the overall program is 76.625, which indicates that the majority of the community beneficiaries are very satisfied with the program, showing that the program has successfully met their expectations and needs. Key aspects of the program, such as its relevance and benefits, have been rated positively by the program's beneficiaries.

3.2. The Satisfaction Index for Management Community Program

The community satisfaction index for program management is measured by community participation in the program, stakeholder synergy, and the performance of the Community Development Officer (CDO) or facilitator. The survey results related to community participation in program planning, implementation, and monitoring and evaluation were presented in **Table 2**.

Table 2. Survey results for community participation

| Society participation | Survey Results | | | |
|----------------------------------|----------------|-----------|------|-----------|
| | Not good | Less good | Good | Very Good |
| Planning | 0% | 0% | 64% | 36% |
| Implementation | 0% | 0% | 64% | 36% |
| Monitoring and Evaluation | 0% | 8% | 76% | 16% |

Based on **Table 2** presents that no respondents consider the community involvement effort in program planning to be less good. 64% of respondents consider the effort to involve the community in program planning good, and 36% of respondents consider the effort to be very good. Respondents believe that PT. Timah Tbk Primary Tin Production Unit has involved the community in the Bumi Rasa program in planning activities. Almost all respondents, 64%, stated that the effort to involve the community in program implementation is good, and 36% of respondents stated that the effort is very good. Respondents evaluate that the company always encourages Bumi Rasa members to participate in every activity.

In addition, 8% of respondents consider the effort to involve the community in program monitoring and evaluation poor, 76% of respondents consider the attempt to be good, and 16% consider the effort very good. Because of PT. Timah Tbk Primary Tin Production Unit's efforts to always visit Bumi Rasa and collect data and report on every activity carried out by Bumdes Bumi Rasa. Meanwhile, the survey results for synergies show that 24% of respondents consider that the company cannot synergize with other stakeholders in implementing community development programs. In contrast, almost all respondents, 56%, believe that the company can synergize with other stakeholders in implementing community development programs, and 20% consider that the company can synergize with other stakeholders in implementing community development programs. Respondents stated that the company always tries to establish communication and cooperation with local stakeholders or figures in Bumi Rasa during program planning, implementation, monitoring and evaluation. The facilitator's performance is measured by closeness to the community, adaptability, responsibility, and competence in the field (Bhagavathula, Brundiers, Stauffacher, & Kay, 2021). The survey results related to the facilitator's performance are presented in **Table 3**.

Table 3. Survey results for facilitator or CDO performance

| Facilitator Performance / CDO | Survey Results | | | |
|-----------------------------------|----------------|-----------|------|-----------|
| | Not good | Less good | Good | Very Good |
| Proximity to the Community | 4% | 24% | 64% | 8% |
| Adaptability | 0% | 8% | 64% | 28% |
| Responsibility | 0% | 12% | 56% | 32% |
| Competence | 4% | 8% | 56% | 32% |

It is known that 4% of respondents consider that they are not close to the facilitator, and 24% of respondents consider that the facilitator is from PT. Timah Tbk Primary Tin Production Unit is less close to the community, 64% of respondents consider that the facilitator from PT. Timah Tbk Primary Tin Production Unit is close to the community, and 8% of respondents consider that the facilitator from PT. Timah Tbk Primary Tin Production Unit is close to the community. It was shown from all respondents who know the facilitator well. Bumi Rasa respondents, 64%, consider that the facilitator has good adaptability skills, and 28% consider that the facilitator has very good adaptability skills in the community so that his presence can be accepted. The facilitator's responsibility is also considered good by 56% of respondents and very good by 32%. Meanwhile, the technical competence of the facilitator in organizing programs and solving problems is considered good by 56% of respondents and is considered very good by 32% of respondents. The data processing results related to the survey on community participation, synergy, and facilitator performance resulted in a community satisfaction index of 3.135 and a converted community satisfaction index for program management of 78.375 or very satisfied. The program's recipients consider community participation, synergy, and facilitator performance very good. The method used to determine the community satisfaction index for the program carried out is considered very effective and accurate. This statement has been revealed by Kusnani, Gs, and Nurmayasari (2013) , who have also researched 100 respondents who are communities around PT. Pertamina (Persero) Refinery Unit VI Balongan. The analysis results showed that the community satisfaction index for the program was 74.6%, which indicates that the community around PT. Pertamina (Persero) Refinery Unit VI Balongan is quite satisfied with the CSR program implemented by the company (Kusnani et al., 2013).

3.3. The Community Satisfaction for the Distribution and Provision of Programs

The community satisfaction index for the distribution and provision of the program is measured based on the accuracy and clarity of the program, program reliability, fairness, and responsiveness. The survey results related to the assessment of the accuracy and clarity of the program showed that 68% of respondents stated that the program provided was suitable or accurate to the characteristics of the target community. 12% stated that the program was very suitable, and 20% stated that the program was less

suitable. Fairness is assessed based on the accuracy of the target and the even distribution of recipients of the community development program provided. The survey results showed that 64% of respondents considered the accuracy and even distribution of program recipients good, 16% stated that it was excellent, and 20% stated that it was not good. Meanwhile, based on the survey conducted by PT. Timah Tbk Primary Tin Production Unit, regarding criticisms, feedback, and suggestions, was considered good by 88% of respondents. The data processing results related to the accuracy and clarity of the program, program reliability, fairness, and responsiveness resulted in a community satisfaction index of 3 and a converted community satisfaction index for the distribution and provision of the program of 75 or very satisfied. This means that the accuracy and clarity of the program, program reliability, fairness, and responsiveness were evaluated as very good by the Bumdes Bumi Rasa Program recipients. This can improve the quality and effectiveness of the programs or services provided to the community (Mathew & Sreejesh, 2017).

3.4. The Total Community Satisfaction Index

The community's satisfaction is formed by the perception of the quality of services or programs provided by the company (Tanford & Jung, 2017). This quality includes reliability, responsiveness, assurance, empathy, and physical evidence (Han, Zuo, Law, Chen, & Zhang, 2021; Shah, Yan, Tariq, & Khan, 2021). This study showed that the overall community satisfaction index of Bumi Rasa as a recipient of community development programs was 3.067, with a total converted community satisfaction index of 76.67 or very satisfied. In addition, the main expectation of Bumi Rasa program recipients is to increase their capacity in managing the programs within Bumdes Bumi Rasa and to be provided with additional training in sustainable human resource development aspects. By improving the quality of services offered to the community, companies can strengthen their relationship with the community and enhance the company's image in the eyes of the community. This correlate with the theory of customer satisfaction that emphasizes the importance of service or product quality in shaping customer satisfaction (Uzir et al., 2021).

4. Conclusion

The Bumi Rasa program obtained a satisfaction index from the community 3,067. After being converted, it became a satisfaction index of 76.67, indicating that the community is very satisfied with the program. Therefore, the program is worth continuing, and these results are crucial for evaluating the program's continuity and ensuring that the targeted community benefits from it. However, the study has limitations, such as the exclusion of sensitivity analysis and social functionality improvement, which could cause subjectivity in the analysis. Hence, further research must consider these limitations to improve the quality of the presented analysis.

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