



Strengthening The Social License to Operate through Area-Based Community Empowerment: A Case Study of Lopak Alai, Kasang Lopak, and Kota Karang Villages, Kumpeh Ulu, Muaro Jambi Regency

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Keywords:	ABSTRACT
Area-Based Community Empowerment; Social License to Operate; Acceptance.	This study aimed to analyze the implementation of area-based community empowerment across three villages in Kumpeh Ulu, Muaro Jambi Regency, and to examine its contribution to strengthening the social license to operate (SLO) of PT Pertamina EP Jambi Field, an upstream oil and gas company operating in the area, using the Acceptance, Deterrence, and Prominence (ADP) perspective. This study employed a qualitative case study approach. Data were collected through program documentation, field observations, and interviews with community members, village governments, beneficiary groups, and other relevant stakeholders. The data were analyzed using a descriptive-interpretive approach by relating empirical findings to the ADP framework. The community empowerment programs were developed based on the characteristics and potential of each village, including biofloc fish farming in Kasang Lopak Alai Village, processed catfish culinary products in Lopak Alai Village, micro, small, and medium enterprise (MSME) development in Kota Karang Village, the Sekolah Lansia Tangguh (Resilient Elderly School), and cross-village initiatives addressing stunting and malnutrition prevention. Economically, the biofloc fish farming group in Kasang Lopak Alai Village, consisting of nine members and operating five ponds, generated approximately IDR 10 million in net group income per production cycle. This study contributes to the literature by positioning area-based community empowerment within Indonesia's upstream oil and gas industry as an object of analysis through the ADP framework, an approach that has been more commonly applied to mining contexts in developed countries.

INTRODUCTION

Upstream oil and gas operations take place within a complex environment encompassing technical, economic, and social dimensions. Every stage of exploration and production, from surveys and drilling to operational activities, occurs alongside the daily lives of communities residing around operational areas. This interaction cannot be reduced merely to an administrative relationship between license holders and affected communities, as the continuity of corporate operations ultimately depends on how communities perceive and interpret the company's presence in their social environment. Therefore, the quality of company–community relations represents a

key determinant of operational sustainability and is as important as technical and financial considerations (Rakhmanissazly et al., 2016).

In the context of extractive industries, compliance with legal requirements and formal licensing is no longer sufficient to guarantee operational continuity. Companies also require social acceptance, commonly referred to in international literature as a social license to operate (SLO). Unlike formal licenses issued by government authorities, which have defined validity periods, SLO is a dynamic and informal social construct that evolves through community experiences and interactions with a company (Prno & Slocombe, 2012). An operation is considered to possess an SLO when it receives sustained acceptance from surrounding communities and stakeholders. Conversely, SLO may decline when company–community relationships deteriorate, even if the company’s formal legal status remains valid.

Community empowerment has traditionally been positioned as a manifestation of corporate social responsibility aimed at improving community capacity, self-reliance, and well-being. This role is important because communities surrounding operational areas require not only material assistance but also the capacity to manage resources, develop economic activities, strengthen local institutions, and improve their quality of life sustainably (Mardikanto & Soebiato, 2013). For companies operating alongside local communities, empowerment also serves an additional strategic function by facilitating interaction and strengthening relationships. Well-designed programs enable companies to maintain continuous engagement in community development rather than interacting with communities only when conflicts or demands emerge (Batidzirai et al., 2021; Lubchenco et al., 2016; Selmier II et al., 2015; Vanclay & Hanna, 2019; Zandvliet & Anderson, 2017).

In Indonesia, the presence of the upstream oil and gas industry within local communities is guided by the Community Involvement and Development Program (Program Pelibatan dan Pengembangan Masyarakat/PPM), which directs companies' social contributions toward key areas, including economic development, social development, and strengthening local institutional capacity (Kurniawan et al., 2022; Rela et al., 2020). This framework emphasizes that the contribution of the upstream oil and gas industry should not be assessed solely through production achievements but also through the benefits experienced directly by communities in operational areas (Putri & Rye, 2024). Local economic empowerment, competency-based training, and integrated business development programs are part of this mandate (Kumar et al., 2022) while simultaneously serving as communication channels between companies and communities (Taufiq et al., 2024).

Kumpeh Ulu in Muaro Jambi Regency, Jambi Province, represents an area where this approach has been implemented. In this area, PT Pertamina EP Jambi Field, an operational unit of PT Pertamina EP managing upstream oil and gas activities in Jambi Province, implements community empowerment programs across three villages with distinct characteristics, potentials, and needs. Rather than applying uniform interventions, the company develops programs based on the local potential of each village. In Kasang Lopak Alai Village, empowerment focuses on freshwater fish farming using biofloc technology, with catfish as the primary commodity. In Lopak

Alai Village, empowerment is developed through the processing of pangasius catfish into value-added culinary products. Meanwhile, in Kota Karang Village, economic empowerment focuses on the development of micro, small, and medium enterprise (MSME) groups producing tofu sticks and tilapia sticks. The village also serves as the location for the Sekolah Lansia Tangguh (Resilient Elderly School). At the broader area level encompassing all three villages, the company implements a stunting and malnutrition prevention program in collaboration with the Puskesmas Muaro Kumpeh (Muaro Kumpeh Community Health Center) (FH et al., 2024).

The diversity of these programs demonstrates that community empowerment in Kumpeh Ulu is not solely directed toward increasing household or community income. Instead, empowerment integrates economic, social, and health dimensions while addressing the needs of diverse groups, including productive business groups, older adults, children under five, and pregnant women. This cross-group approach indicates that company–community relations are shaped not only by economic benefits but also by community perceptions of the company’s commitment, relevance, engagement, and contribution to broader social development.

To understand these empowerment initiatives systematically, this study employed the Acceptance, Deterrence, and Prominence (ADP) framework. These three dimensions represent interconnected mechanisms. Acceptance refers to the company’s ability to establish and maintain community acceptance; deterrence refers to its ability to prevent or mitigate potential social risks through sustained engagement and relationship management; and prominence refers to its ability to maintain and strengthen a positive reputation among communities and broader stakeholder groups.

The concept of social license to operate initially emerged within the mining industry in response to increasing social risks faced by extractive companies despite compliance with formal licensing requirements (Prno & Slocumbe, 2012). SLO refers to the ongoing acceptance and approval of operational activities by local communities and other stakeholders. Prno (2012) emphasized that SLO is fundamentally relationship-based; therefore, local context, benefit distribution, public participation, and adaptability to social complexity are essential factors in establishing SLO. Moffat and Zhang (2014) developed an integrative model demonstrating that community acceptance of mining operations is strongly influenced by the quality of company–community interactions and procedural fairness, which subsequently shape trust as a fundamental element of SLO. Meanwhile, Parsons, Lacey, and Moffat (2014) highlighted that SLO is interpreted differently by corporate managers and communities, with legitimacy, locality, process, and management capacity emerging as dominant themes. Collectively, these studies emphasize that SLO cannot be obtained instantaneously but is developed through continuous relational processes.

In Indonesia, the application of SLO in the upstream oil and gas industry has received increasing academic attention, particularly regarding corporate social responsibility programs. Helena et al. (2025) found that the implementation of community empowerment-based CSR in an oil and gas company in Jambi Province contributed to strengthening corporate image, although limitations remained regarding geographical coverage and long-term impact evaluation. These

findings reinforce the view that community empowerment and corporate social legitimacy are interconnected processes rather than separate agendas. Community empowerment refers to efforts to strengthen community capacity, individually and collectively, to manage resources and address challenges, enabling communities to fulfill their rights (Mardikanto & Soebiato, 2013). An area-based approach emphasizes that empowerment programs should be adapted to the geographical, social, and economic characteristics of each village rather than uniformly applied across different locations. This approach is based on the understanding that each village has distinct potentials and needs; therefore, effective interventions should be developed from local conditions rather than imposed through a top-down approach.

In practice, area-based approaches in the aquaculture sector have incorporated biofloc technology as a foundation for economic empowerment. Agustina et al. (2024) stated that strengthening aquaculture group capacity through technological innovation, including improved feed management and water quality control, contributed to increased productivity and group income. In the health sector, empowering posyandu (integrated health service post) cadres is widely applied in community-based stunting prevention programs because these cadres act as local facilitators connecting formal healthcare services with community needs (Purnamasari et al., 2020). In the social sector, empowering older adults through approaches integrating physical, social, and psychological dimensions contributes to improving quality of life (Kiik et al., 2018).

This study applied the Acceptance, Deterrence, and Prominence (ADP) framework to analyze the contribution of community empowerment to strengthening SLO. These three dimensions were developed by synthesizing recurring themes identified in SLO literature rather than being adopted from a single source. The acceptance dimension refers to social acceptance developed through interaction quality and trust, as emphasized by Moffat and Zhang (2014) and Prno and Slocombe (2012). The deterrence dimension refers to the preventive role of sustained engagement in mitigating social risks, consistent with Prno's (2013) emphasis on continuous relationship management as a mechanism for conflict prevention. The prominence dimension refers to strengthening corporate reputation and legitimacy among broader stakeholder groups, consistent with Helena et al. (2025), who highlighted the contribution of community empowerment-based CSR to corporate image in the oil and gas sector. In this study, the three ADP dimensions were not considered sequential stages but mutually reinforcing dimensions within the same process of developing company–community relationships through empowerment programs. Based on this conceptual foundation, this study aimed to analyze how area-based community empowerment across three villages in Kumpeh Ulu contributed to strengthening the social license to operate through the Acceptance, Deterrence, and Prominence perspective.

METHOD

This study employed a qualitative method with a case study design to examine the implementation of community empowerment programs within a specific social context (Neuman, 2014). The study was conducted in three villages in Kumpeh Ulu, Muaro Jambi Regency, located within the operational area of PT Pertamina EP Jambi Field. The research examined four

community empowerment initiatives: biofloc aquaculture in Kasang Lopak Alai Village; processed pangasius catfish product development in Lopak Alai Village; MSME development and the Sekolah Lansia Tangguh (Resilient Elderly School) in Kota Karang Village; and a stunting and malnutrition prevention program implemented across the three villages.

Data were collected through three techniques. First, program documentation was reviewed, including implementation reports, beneficiary group achievement records, and supporting documents prepared by program managers. Second, direct observations were conducted during program activities, including business group operations, learning activities at the Sekolah Lansia Tangguh, and posyandu (integrated health service post) activities. Third, interviews were conducted with relevant stakeholders, including beneficiary group members, village government officials, community health cadres, and other parties involved in program implementation.

Data were analyzed using a descriptive-interpretive approach. The data obtained from documentation, observations, and interviews were first organized and analyzed descriptively based on each program and village to identify the outcomes of the interventions. Subsequently, the findings were interpreted using the Acceptance, Deterrence, and Prominence (ADP) framework to examine their contribution to strengthening the social license to operate (SLO). Data triangulation was conducted by comparing information from interviews, field observations, and program documents to ensure the consistency and credibility of the findings.

RESULTS AND DISCUSSION

Overview of Area-Based Community Empowerment in Kumpeh Ulu

Community empowerment in the Kumpeh Ulu area was developed through an area-based approach that considers the characteristics and potential of each village. This approach enables the company to develop different forms of intervention tailored to local contexts while simultaneously fostering relationships among stakeholders within an interconnected area.

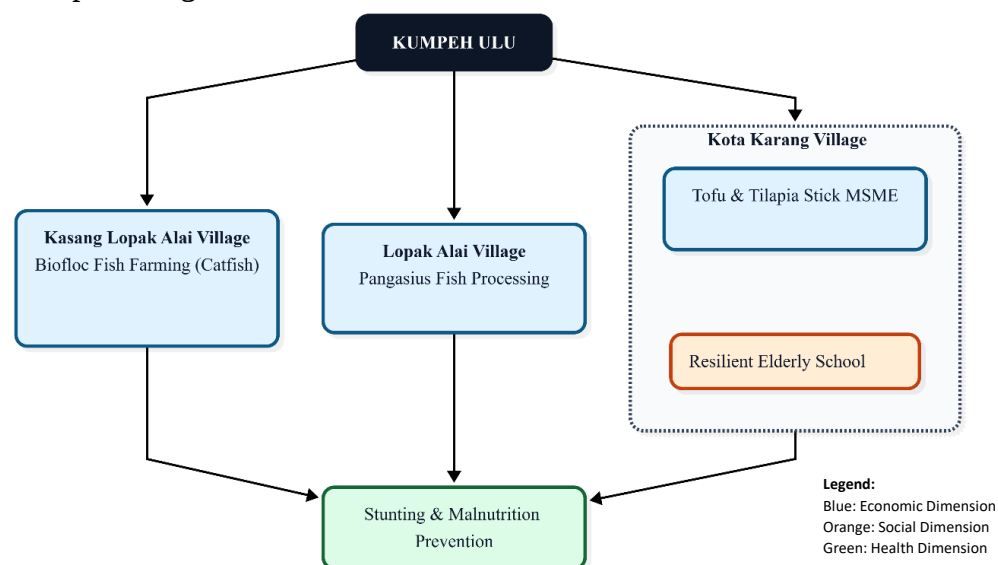


Figure 1. Area-Based Community Empowerment Scheme in Kumpeh Ulu

Source: Developed by the authors based on field findings and program documentation (2026).

As illustrated in Figure 1, economic interventions were implemented through biofloc fish farming in Kasang Lopak Alai Village, pangasius catfish culinary processing in Lopak Alai Village, and MSME development in Kota Karang Village. In the social dimension, empowerment was implemented through the Sekolah Lansia Tangguh (Resilient Elderly School), also located in Kota Karang Village. In the health dimension, the stunting and malnutrition prevention program was implemented at the area level, encompassing all three villages. This approach demonstrates that empowerment is understood not merely as the provision of productive assistance but as a process of developing community capacity based on the potential available in each locality. Overall, the empowerment programs encompass three dimensions, economic, social, and health empowerment as summarized in Table 1.

Table 1. Summary of Kampung Bahari Si Pelaut Program Sub-Activities

Village	Program	Number of Members/Participants	Products/Activities	Achievements
Kasang Lopak Alai	Biofloc fish farming	9 members with 5 ponds	Catfish	Net income of IDR 10,000,000 per cycle (2 cycles, each lasting 3–4 months)
Lopak Alai	Pangasius catfish processing	6 members	Shredded fish, sambal, crackers, and pangasius sticks	Revenue of IDR 2,000,000 through 4 marketing channels
Kota Karang	MSME development	6 members	Tofu sticks and tilapia sticks	Revenue of IDR 3,000,000 per month, with 250 products sold over 6 months
Kota Karang	<i>Sekolah Lansia Tangguh</i> (Resilient Elderly School)	23 participants	<i>Healthy, Happy, and Creative Aging</i> (5 activities)	Improved social interaction and the development of new skills, including <i>ecoprint</i>

Source: Author's field data and program documentation (2026).

Strengthening the Local Economy

Biofloc Aquaculture in Kasang Lopak Alai Village

The economic empowerment program in Kasang Lopak Alai Village focuses on the development of freshwater aquaculture, with catfish as the primary commodity, using a biofloc system. The program involves nine group members supported by five aquaculture ponds. The group has completed two production cycles, each lasting approximately three to four months. From these production cycles, the group generated a net income of approximately IDR 10,000,000 per cycle. By comparison, prior to the implementation of the program, individual community members in the village earned approximately IDR 2,000,000 to IDR 3,000,000.

These findings indicate the emergence of productive economic activities managed collectively by the group. This is particularly important from an empowerment perspective, as community members are not merely recipients of production facilities but have begun operating a collective enterprise with its own production cycles and income management mechanisms. Thus, empowerment within this program extends beyond the provision of aquaculture facilities to include the development of community capacity to manage production activities, sustain business cycles, and generate group income on a continuous basis.



Figure 2. Biofloc Aquaculture Activities in Kasang Lopak Alai Village

Source: Author's documentation during field observation (2026).

Diversification of Processed Pangasius Catfish Products in Lopak Alai Village

In Lopak Alai Village, community empowerment is implemented through the development of culinary products made from pangasius catfish. The program involves six group members who have developed four types of processed products: shredded fish, sambal ingkung, crackers, and pangasius catfish sticks. This product diversification demonstrates an effort to increase the added value of local commodities, as pangasius catfish is no longer marketed solely as a raw commodity but is processed into various products with distinct characteristics and market values. The group has gained market access through several channels, including an offtaker, souvenir shops, the local community, as well as events and exhibitions. Through these marketing channels, the group has generated approximately IDR 2,000,000 in revenue. The availability of multiple marketing channels indicates that the empowerment process has progressed beyond production toward market development, an important stage for business sustainability, as the capacity to produce goods needs to be accompanied by the ability to consistently access markets.



Figure 3. Processed Pangasius Catfish Products from Lopak Alai Village
 Source: Author's documentation during field observation (2026).

MSME Development in Kota Karang Village

The economic empowerment program in Kota Karang Village focuses on the development of micro, small, and medium enterprises (MSMEs), with two main products: tofu sticks and tilapia sticks. The group consists of six members and has generated approximately IDR 3,000,000 in monthly revenue, with 250 units sold over a six-month period. These figures indicate that the group has established ongoing economic activities that generate regular sales transactions. The development of products using locally available raw materials, namely tofu and tilapia, also demonstrates an effort to utilize community resources to create value-added products. Compared with assistance-based approaches that result only in the provision of production facilities or training without further implementation, the group's consistent production and sales activities indicate that the intervention has progressed toward the application of acquired capacities to generate tangible and sustainable economic activities.



Figure 4. Tofu Stick and Tilapia Stick Products from Kota Karang Village
 Source: Author's documentation during field observation (2026).

Social Empowerment through the Resilient Elderly School

Community empowerment in Kota Karang Village is not limited to economic development but also focuses on improving the quality of life of older adults through the Sekolah Lansia Tangguh (Resilient Elderly School). The program involves 23 older adult participants and has conducted five learning activities in collaboration with the Jambi Provincial Office of the National Population and Family Planning Board (BKKBN). The program is structured around three categories of activities: Healthy Aging, Happy Aging, and Creative Aging. Healthy Aging focuses on participants' physical and emotional well-being through health examinations and regular classes. Happy Aging provides opportunities to strengthen participants' spiritual well-being through regular classes. Meanwhile, Creative Aging focuses on developing participants' skills through activities such as ecoprint and cookie-making.

The program has resulted in positive changes in participants' social engagement. Participants have become more comfortable interacting with others, while positive changes have also been observed in their relationships with family members. In addition, participants have acquired new skills, including the ability to produce ecoprint products. These findings demonstrate that the success of community empowerment does not necessarily need to be measured solely through income indicators. Among older adults, empowerment outcomes are reflected in increased social participation, improved interpersonal interaction, the development of new skills, and enhanced quality of social relationships with their surrounding communities.



Figure 5. Social Empowerment through the Resilient Elderly School
Source: Author's documentation during field observation (2026).

Strengthening Health Capacity through Stunting Prevention

At the area level encompassing all three villages, the company implements a stunting and malnutrition prevention program in collaboration with the Muaro Kumpeh Community Health Center (Puskesmas Muaro Kumpeh). The program involves 15 children under five and eight community health cadres, with a total of 25 health examinations conducted. All 15 children received supplementary feeding and participated in regular growth and development monitoring.

The program also provided four consultation sessions involving specialist physicians, as summarized in Table 2.

Table 2. Achievements of the Cross-Village Stunting and Malnutrition Prevention Program

Indicator	Achievement
Number of targeted children under five	15 children
Number of community health cadres involved	8 cadres
Number of health examinations conducted	25 examinations
Children receiving supplementary feeding	15 children
Children participating in growth and development monitoring	15 children
Number of consultations with specialist physicians	4 consultations
Supporting activities	Exercise sessions for pregnant women, training for community health cadres, and support for the child growth and development clinic in collaboration with the Muaro Kumpeh Community Health Center

In addition to direct interventions targeting beneficiaries, the program also includes exercise sessions for pregnant women and training for community health cadres. The company also supports the child growth and development clinic in collaboration with the Muaro Kumpeh Community Health Center. The structure of these activities demonstrates that the approach is not solely curative but also incorporates promotive and preventive measures, as well as the continuous strengthening of community capacity. The involvement of community health cadres constitutes an important element of the program because the sustainability of community health interventions depends not only on the company's presence but also on the capacity of local actors to continue health education, monitoring, and communication functions after the facilitation program has ended. Collaboration with the Muaro Kumpeh Community Health Center further demonstrates that the program is implemented in partnership with an institution possessing formal expertise and mandates in the health sector, rather than as a stand-alone initiative operating outside the existing healthcare system.

From the ADP perspective, acceptance refers to community acceptance of a company's presence and activities. As emphasized by Prno and Slocombe (2012), such acceptance does not emerge automatically from the company's presence or its compliance with formal licensing requirements; rather, it develops through accumulated experiences of company–community interactions over time. The empowerment programs implemented across the three villages in Kumpeh Ulu create various spaces for interaction that support the development of such acceptance. Community members participate in diverse roles, including as members of biofloc aquaculture and processed pangasius catfish groups, MSME actors, participants in the Resilient Elderly School, community health cadres, and beneficiaries of the stunting prevention program. Within the economic programs, communities interact with the company through business development processes, production assistance, and the development of market access. Within the health program, these relationships are extended through the involvement of the Community Health Center, health cadres, pregnant women, and families with children under five. Meanwhile, the

Resilient Elderly School creates a space for interaction with a segment of the community that has traditionally been less involved in productive economic programs. This diversity of beneficiaries broadens the company's social relationship base within the area, consistent with Moffat and Zhang's (2014) finding that the quality of contact between a company and different segments of society not only groups directly receiving economic benefits is an important factor in developing the trust underlying SLO. Accordingly, acceptance in this context should not be narrowly understood as community acceptance of assistance but rather as a process of relationship-building through which communities directly experience the company's presence and contributions across various aspects of their lives.

Within the ADP framework, deterrence relates to a company's ability to prevent or mitigate potential social risks. In the context of community empowerment, this mechanism can be developed through regular and sustained engagement rather than through reactive interventions initiated only after problems have emerged. This argument is consistent with Prno (2013), who emphasizes that SLO is built upon sustained relationships that enable companies to understand social dynamics at an early stage, thereby allowing potential risks to be anticipated before they develop into open conflict. The implementation of empowerment programs across the three villages creates various channels of interaction that function as mechanisms of early engagement. Economic groups provide regular communication spaces for discussing business development and community needs. The health program facilitates periodic interactions among communities, health cadres, the Community Health Center, and the company through posyandu activities and consultation sessions. The Resilient Elderly School similarly establishes engagement with community groups that were previously less involved in the company's productive economic activities. These channels of interaction have strategic value because they enable the company to develop a closer understanding of community conditions, needs, and dynamics over time. Thus, the diversity and continuity of these interaction channels indicate the presence of relational mechanisms that may strengthen the company's capacity to prevent social risks through sustained communication rather than incidental responses.

Meanwhile, prominence relates to the company's positive position and reputation among communities and broader stakeholder groups. The findings of Helena et al. (2025) regarding an oil and gas company in Jambi Province demonstrate that the implementation of community empowerment-based CSR contributes significantly to improving corporate image among communities surrounding operational areas, a finding that is relevant to the context of this study. Community empowerment in Kumpeh Ulu provides opportunities for the company to demonstrate tangible contributions through activities that generate direct benefits for communities. However, consistent with Parsons, Lacey, and Moffat's (2014) observation that social legitimacy is not built solely through the number of programs or the scale of social investment, a positive reputation in this case is shaped primarily by the consistency of the company's presence and the quality of its relationships with various stakeholders. In implementing the programs in Kumpeh Ulu, the company collaborates with multiple stakeholders: the health program is implemented in collaboration with the Muaro Kumpeh Community Health Center and involves specialist

physicians; the Resilient Elderly School is implemented in collaboration with the Jambi Provincial Office of the National Population and Family Planning Board (BKKBN); and the economic programs are connected with offtakers, souvenir shops, local communities, as well as events and exhibitions. Such multi-stakeholder collaboration expands the company's role from merely providing assistance to becoming part of a broader community development ecosystem. The company's involvement across economic, social, and health issues also demonstrates a more comprehensive form of contribution than a single program addressing only one aspect of community life. This multidimensional pattern of contribution has the potential to foster perceptions that the company's presence generates broader benefits for communities while simultaneously strengthening its position as a credible development partner among local and regional stakeholders.

The findings of this study indicate that the three ADP dimensions can be understood as interconnected mechanisms within community empowerment practices, as illustrated in Figure 1. Empowerment initiatives developed according to the potential and needs of each village generate tangible benefits and facilitate direct community engagement. Such engagement creates interactions that subsequently contribute to acceptance. Sustained interactions also provide opportunities for the company to identify potential social risks and initiate engagement at an earlier stage (deterrence). At the same time, consistency in delivering benefits and building collaboration with diverse stakeholders strengthens the company's reputation (prominence).

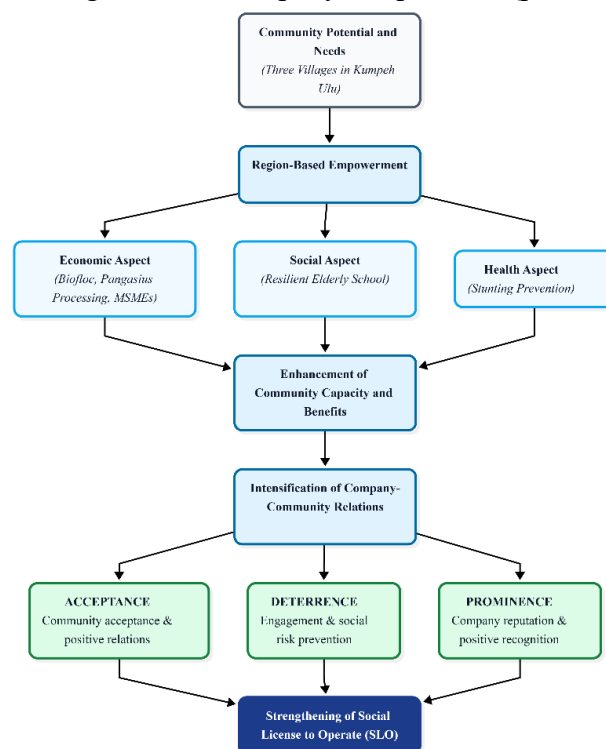


Figure 6. Integration Scheme of Area-Based Community Empowerment and SLO Strengthening through the ADP Perspective

Source: Developed by the authors based on research findings and ADP framework analysis (2026).

The framework presented in Figure 5 emphasizes that SLO should not be viewed as an outcome that a company obtains instantly after providing community programs, but rather as the result of an ongoing social process. This is consistent with Moffat and Zhang's (2014) emphasis on the processual and dynamic nature of SLO. Community empowerment constitutes one mechanism within this process because it provides opportunities to build relationships, generate benefits, strengthen community capacity, and facilitate sustained interaction between the company and various stakeholders.

Accordingly, the outcomes of community empowerment in the Kumpeh Ulu case can be understood through two interconnected dimensions. The first is community value, referring to tangible changes and benefits experienced by communities, as reflected in increased income among business groups, expanded skills among older adults, and improvements in health indicators among children under five. The second is relationship value, referring to the development of social relationships that support sustained interactions between the company and communities, as reflected in the diversity of interaction spaces and multi-stakeholder collaborations that have been established. Both dimensions are particularly important for upstream oil and gas companies because operational sustainability requires more than compliance with formal regulations; it also requires relationships that are actively and continuously maintained with communities surrounding operational areas.

CONCLUSION

This study concluded that area-based community empowerment implemented across Lopak Alai, Kasang Lopak Alai, and Kota Karang Villages in Kumpeh Ulu contributed to strengthening the social license to operate (SLO) of PT Pertamina EP Jambi Field through the interconnected mechanisms of Acceptance, Deterrence, and Prominence (ADP). The empowerment programs, including biofloc aquaculture, processed pangasius catfish product development, micro, small, and medium enterprise (MSME) development, the Sekolah Lansia Tangguh (Resilient Elderly School), and stunting prevention initiatives, generated multidimensional benefits encompassing economic, social, and health aspects. These programs not only enhanced community capacity and generated tangible benefits but also facilitated continuous interaction between the company and local stakeholders. Through the ADP perspective, empowerment strengthened community acceptance by expanding engagement opportunities, supported social risk mitigation through sustained communication, and enhanced corporate prominence through collaboration with local institutions and community groups. Therefore, SLO should be understood as an ongoing relational process developed through consistent contributions, trust-building, and meaningful company–community interactions rather than as an immediate outcome of corporate social responsibility programs.

Future research is recommended to further develop empirical measurements of SLO, particularly through the construction of quantitative indicators assessing the contribution of community empowerment programs to each ADP dimension. Future studies may also employ longitudinal approaches to evaluate the sustainability of empowerment outcomes, particularly regarding the continuity of community business groups, economic independence, and the

durability of company–community relationships after program facilitation has ended. In addition, comparative studies involving different upstream oil and gas operational areas are encouraged to identify contextual factors influencing the effectiveness of area-based empowerment strategies in strengthening SLO. Such research development may provide broader theoretical and practical insights for designing sustainable community empowerment models within extractive industries.

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