Strategy For Increasing Inclusive Business Of Oil Palm Small Farmers In Sijunjung Regency

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ABSTRACT

West Sumatra is one province that is growing its oil palm planting potential. Sijunjung Regency is one of West Sumatra's oil palm plantation hubs and home to several small farmers. Smallholder oil palm farms operated by smallholders have not been able to deliver optimum benefits and are still far behind other plantations, which renders their business exclusive. The lack of smallholder participation in the value chain is a barrier to creating an inclusive business. The purpose of this study was to develop a strategy to expand the inclusive business of smallholder oil palm producers in Sijunjung Regency. This study used the Analytical Hierarchy Process (AHP) to discover the most effective farming practices. Smallholder Assistance including Good Agriculture Practices (GAP) and Managerial is the most important strategy in this study, followed by ease of access to finance.
1. INTRODUCTION

Sumatera is home to the main palm oil production centers in Indonesia, including Riau, North Sumatera, West Sumatera, South Sumatera, and Jambi. West Sumatera is one province that is growing its palm oil planting potential. Ten cities and regencies in West Sumatera are devoted to palm oil plantations. Initially, the government held palm oil plantations in West Sumatera, and then smallholders began to participate through contracts or by growing their own palm oil. According to the Badan Pusat Statistik (BPS), in 2018 there were 190,129 palm oil farmers in West Sumatera, making it the seventh most populous province in Indonesia. It refers to the population of the West Sumatera Province many make palm oil their livelihood even though the scale of their business is still relatively small. Sijunjung Regency is one of West Sumatera's palm oil plantation centers and has several small farmers. There are eight sub-districts which are prospective locations and are used as palm oil land by the community as shown in Table 1.

<table>
<thead>
<tr>
<th>Subdistrict</th>
<th>Area (ha)</th>
<th>Production (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamang Baru</td>
<td>8.766</td>
<td>103,699</td>
</tr>
<tr>
<td>Tanjung Gadang</td>
<td>155</td>
<td>554</td>
</tr>
<tr>
<td>Sijunjung</td>
<td>157</td>
<td>1,417</td>
</tr>
<tr>
<td>Lubuk Tarok</td>
<td>321</td>
<td>3,983</td>
</tr>
<tr>
<td>IV Nagari</td>
<td>211</td>
<td>1,558</td>
</tr>
<tr>
<td>Kupitan</td>
<td>46</td>
<td>520</td>
</tr>
<tr>
<td>Koto VII</td>
<td>133</td>
<td>1,537</td>
</tr>
<tr>
<td>Sumpur Kudus</td>
<td>41</td>
<td>52</td>
</tr>
</tbody>
</table>

Source: BPS (2020)

Kamang Baru sub-district has the largest palm oil plantation with an area of 8,387 Ha, then Lubuk Tarok sub-district with an area of 299 Ha and the third IV Nagari sub-district with an area of 216 Ha (BPS-Statistics Indonesia, 2020). Two palm oil mills (PKS) and other factories located outside of the Sijunjung Regency support the three planting areas. The National Private Large Plantation (PBSN) controls palm oil production, whereas smallholder plantings are managed by autonomous smallholders. Small farmer-managed People's palm oil farms have not been able to give optimal advantages and lag considerably behind other plantations controlled by the government and the private sector (Heriyanto et al., 2019). Smallholders are less engaged in the execution of the palm oil value chain in the Sijunjung Regency. Small farmers are routinely ostracized, abandoned, exposed to differential treatment and unequal profit distribution, and a lack of transparency weakens their bargaining power (Jezeer et al., 2019). This renders the palm oil plantation business for smallholders exclusive. In addition to reducing poverty and generating prosperity, inclusive business can integrate smallholders into the market to the mutual benefit of the disadvantaged and the business community. This can be achieved through the formation of partnerships between producers, the public sector, consumers, and non-governmental organizations (Sulle et al., 2014). To increase the inclusiveness for smallholders is by empowering them to have more control over the value chain.
Typically, inclusive value chains target smallholders as a significant proportion of the rural poor, who are defined by different levels of marginalization and destitution and restricted access to technology, assets, capital markets, education, training, input and output markets (Ashley and Haysom 2008). It is a source of business strategy for smallholders to generate commodities with high added value (Blok et al. 2016). Several external factors prevent palm oil smallholders in Sijunjung Regency from becoming an inclusive business, especially the distance from the factory, the difficulty of access, and the extremely low prices. Another difficulty is that the mechanism used to sell Fresh Fruit Bunches (FFB) is complex, as it must involve middlemen so that farmers have no bargaining power. Smallholders of palm oil can engage in inclusive business if they can sell plantation goods directly to palm oil processing factories without the use of intermediaries (middlemen). However, smallholder palm oil farmers must meet several requirements, including the ability to meet the company's needs based on demand, the provision of high-quality raw materials, a level of service comprised of on-time delivery, and profiles of palm oil farmers based on a map of the land area and the amount of production required (Enyinda et al. 2010).

Government's role in supporting inclusive businesses is important. However, the current utilization of funding for revitalization remains inadequate. Moreover, the stigmatization of palm oil has strained interactions between producer organizations and the government, consequently limiting smallholder access to financial credit (Jezeer et al. 2019). Producer organizations such as farmer groups and cooperatives can improve inclusiveness values (Jezeer et al., 2019). They can support small farmers in gaining access to inputs such as fertilizer at a reasonable cost and provide technical assistance. Several factors can be identified based on the preceding explanation that influence the inclusive business of smallholder palm oil farmers. Inclusive businesses usually target small farmers as a large part of the rural poor (Gereffi and Fernandez 2016). There are several previous studies that were reviewed and used as references to support this research. Jezeer et al.(2019) stated that the inclusion of smallholders is a part of the value chain. To overcome market access issues, palm oil company shareholders in Peru include smallholders in the value chain (German et al., 2020). According to Chamberlain dan Anseeuw (2019) According to the case study method, inclusive business is dynamic and hence requires government regulation. The opportunities and constraints of smallholder inclusive businesses are significantly influenced by crop and supply chain characteristics (German et al., 2020). Otherwise, according to (Gradl et al.2012), farmers can implement five fundamental solutions, including performing research and developing innovations, raising production factors, conducting counseling and training on agricultural knowledge, formulating policies, and improving relationships along the value chain. Innovation development may enable increased farmers' ability to use the platform to communicate their farming conditions and needs to value chain partners (Agyekumhene et al.2020).

Ros-Tonen et al.(2019) stated that the key to making this process of the palm oil industry more inclusive is a farmer-centered approach that acknowledges the reality of gender and smallholder differentiation as well as knowledge, capacity, and innovative institutions, as indicated. In addition, according to research conducted by Devaux et al.(2016), conclude: effective participation in the value chain for inclusive business involves land capital, financial
resources, knowledge, skills, social capital, and broad market access. Added in research Boer et al. (2019), the involvement of the business model has a positive impact on the performance of sustainable agriculture and the inclusion of smallholders in the cocoa value chain. This opinion is also supported by (Danse et al., 2020) Collaboration with actors along the value chain can increase added value. Then in research, (Permatasari, 2018) the inclusive business model of farmers joining cooperatives is characterized by a powerful and highly profitable partnership. To eliminate the barriers to inclusive business, it is required to examine government policies, financial services, partnerships, and technical guidance. This research aims to develop strategies that smallholder oil palm farmers in Sijunjung Regency can use to increase inclusive business.

2. RESEARCH METHODS

This analysis utilized the Analytical Hierarchy Process (AHP). According to Marimin (2017), one of the many benefits of using AHP to solve a challenging problem is that it makes problem-solving easier. AHP employs an integrated and deductive systems approach to solve difficult problems. It is applicable to system components that function independently. In AHP, measurement scales and methods for getting priority, consistency in AHP, logistics in the items used to create priorities, synthesis, provide an estimate of the relative importance of each option, and provide an assessment. Bidding at AHP also provides evaluation. A natural way of thinking, the AHP hierarchy tends to arrange system elements into distinct levels containing the same elements. In AHP, hierarchy is a natural way of thinking. A scaled evaluation of AHP’s offerings There are no rigid guidelines within the context of the AHP framework. Instead, it is possible to integrate multiple distinct outcomes into a single result. Using the AHP process may result in becoming an expert on a problem, performing research using many methods, and obtaining additional knowledge about the subject.

Thomas Lorie Saaty (1993) describes the AHP method, which is implemented by modeling the problem in stages comprised of criteria and alternatives. AHP is essentially a general theory of measurement used to determine the ratio scale from discrete and continuous pairwise comparisons. These comparisons may be derived from actual measurements or basic scales that reflect the intensity of emotions and relative preferences. This method is a framework for making effective decisions on problems by simplifying and accelerating the decision-making process by decomposing the problem into its component parts or variables, arranging them in a hierarchical order, assigning numerical values to subjective evaluations of the importance of each variable, and synthesizing them. Consider these factors to determine which variable has the highest priority and to influence the situation's outcome. The Analytic Hierarchy Process (AHP) can break down complex, unstructured, strategic, and dynamic problems into component parts and organize variables hierarchically (level). The criteria for a problem may be numerous (multi-criteria), the structure of the problem may be unclear, the opinion of the decision maker may be uncertain, the decision maker may be more than one person, and the available data may be inaccurate.

**Analytical Hierarchy Process (AHP) Stages**

Marimin (2017) When using the AHP method to solve problems, there are three principles that must be followed: creating a hierarchy, reviewing each level of the hierarchy, and ensuring that
the rules are logistically consistent. (1) The hierarchical arrangement is created by identifying the knowledge or information gleaned from a complex situation and deconstructing it into its main elements. Then, each subcomponent of the primary component is divided into its subcomponents, and so on. Each hierarchy is evaluated by comparing pairs of objects. (2) Two elements at the same hierarchical level are compared to elements at the top of the hierarchy using a nine-unit scale. The matrix is used for comparisons. A matrix is a table that allows you to compare items based on specific criteria. The matrix allows you to examine consistency and determine which changes are most significant overall. (3) Logistic criteria were used to consistently rank all items. For the results to be accurate, there must be a high level of consistency in the evaluation. AHP use consistency ratios to measure the complete spectrum of considerations. The ratio's value must be at least 10%. It still exists and need fixing.

<table>
<thead>
<tr>
<th>Nilai</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The vertical factor is as important as the horizontal factor</td>
</tr>
<tr>
<td>3</td>
<td>The vertical factor is more important than the horizontal factor</td>
</tr>
<tr>
<td>4</td>
<td>The vertical factor is clearly more important than the horizontal factor</td>
</tr>
<tr>
<td>7</td>
<td>The vertical factor is clearly more important than the horizontal factor</td>
</tr>
<tr>
<td>9</td>
<td>The absolute vertical factor is more important than the horizontal factor</td>
</tr>
<tr>
<td>2,4,6,8</td>
<td>When in doubt between two adjacent element values</td>
</tr>
</tbody>
</table>

*Source: Saaty (2001)*

The study was conducted between July of 2021 until August of 2022. The hierarchical structure of the strategy for expanding the inclusive business of oil palm smallholders in Sijunjung Regency is based on tested variables including the government's role, the adoption of innovation and technology, access to finance, partnerships, and certification systems, as well as observations from oil palm value chain actor interviews and literature reviews in Sijunjung Regency, such as lecturers, government, and farmer group leaders, as shown in Table 3. In selecting AHP respondents, experts who are believed to comprehend the research material are selected. Respondents were chosen using a technique of purposive sampling based on a number of criteria, including their knowledge of and ability to make strategic decisions in the oil palm sector.

<table>
<thead>
<tr>
<th>No</th>
<th>Position</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lecturer of Operations and Production Management</td>
<td>IPB</td>
</tr>
<tr>
<td>2.</td>
<td>Head of Plantation</td>
<td>Sijunjung Regency Agriculture Service</td>
</tr>
<tr>
<td>3.</td>
<td>Agricultural Extension</td>
<td>Sijunjung Regency Agriculture Service</td>
</tr>
<tr>
<td>4.</td>
<td>Farmer's Group Leader</td>
<td>Farmer’s Group Sepakat</td>
</tr>
<tr>
<td>5.</td>
<td>Farmer's Group Leader</td>
<td>Farmer’s Group Kamang</td>
</tr>
</tbody>
</table>

*Source: Result of Data Processing (2022)*

Several considerations inform the decision-making process. In selecting which decisions or strategies will be implemented, consideration is used as a factor. Five aspects comprise the strategy for expanding the inclusive business of oil palm smallholders in Sijunjung Regency.
These factors are derived from operational research variables, including government role, innovation and technology uptake, access to capital, partnerships, and certification systems.

**Government Role.** To achieve inclusive and integrated business in low-income communities, the government plays an important role. The government's role can be one of both financial and infrastructure support (Jezeer et al. 2019). The government can implement measures that foster cohesion between ministries and government stakeholders. The policy begins with the general policy framework, which establishes a clear and attractive vision (G20 Development Working Group 2015). As has been done in several other countries, the government can build a new structure to achieve inclusive business goals and provide some benefits to low-income populations. Governments can also increase awareness and understanding of inclusive business practices (Jezeer et al. 2019).

**Adoption Innovation and Technology.** Business models that are inclusive generate and define sustainable consumption and production processes. They can serve as prototypes for new approaches to business improvement (Gradl and Knobloch 2010). Adoption of technology plays an important role for smallholder-inclusive businesses, such as facilitating palm oil cultivation. Some articles also mention intercropping, which involves combining palm oil plantations with other crops (Jezeer et al. 2019). In fact, a significant proportion of them are dissatisfied with the absence of government incentives that might attract investment in other crops.

**Partnership.** Partnership or collaboration is one of the criteria for the success of small farmers. Typically, factories, cooperatives, and traders with formalized cooperation contracts form partnerships; smallholders are typically less involved in the value chain (Jezeer et al. 2019). Through coordinated, long-term actions by private and public partners, production or pricing-related issues can be resolved. Existence of institutions or organizations, such as cooperatives, can aid small farmers in managing and marketing palm oil products.

**Certification System.** Internal corporate certifications can assist businesses in moving towards technical, social, and environmental standards, and can increase customer and/or investor visibility and confidence. Certification can be used to reward inclusive production methods and signal quality (G20 Development Working Group 2015). Using a phased approach, certification can document the balance and compliance of smallholders. Certification typically results in higher yields per hectare and more efficient use of inputs on farms. Existence of a certification system can give long-term benefits. According to Jezeer et al. (2019), Build trust through transparent mechanisms and dynamic actor collaboration, and reproduce successful ways across regions. Nonetheless, it must take into account the vast diversity of palm oil smallholders, particularly in terms of land ownership, skills, expertise, and interests, and secure the commitment of other actors throughout the long supply chain.

3. **RESULTS AND DISCUSSION**

In this study, the AHP method was used to determine the optimal strategy for expanding the inclusive business of oil palm smallholders in Sijunjung Regency. This method assists in making decisions based on the relative significance of available alternatives. This technique was presented in the form of a framework that compares solutions or actions to other options and illustrates the relative relevance of the choices. The study was conducted between July of
2021 until August of 2022. By delivering questionnaires to five respondents, including different persons from the Agriculture Service of Sijunjung Regency, two individuals from the Farmers Group, and one lecturer, various solutions are determined. The chosen experts are displayed in the Table of Expertise Levels as determined by the Consistency Ratio (CR). This study’s data has a value less than 0.10, therefore it can be stated that experts’ or respondents’ answers have been consistent. Figure 1 depicts the outcomes of the hierarchy of smallholder oil palm inclusive business improvement strategies in Sijunjung Regency.

**Figure 1 AHP Analysis Results**

*Source: Result of Data Processing, 2022*

**Description:**
- F1: Role of Government
- F2: Adoption of Innovation and Technology
- F3: Access to Finance
- F4: Partnership
- F5: Certification System
- S1: Government Commitment
  - Master's Degree: Increasing the Use of the Latest Technology
- S3: Smallholder assistance includes Good Agriculture Practices (GAP) and Managerial
- S4: Ease of access to finance
- S5: Sharing information on FFB prices to farmers.

Based on the findings of weighing calculations performed using the Expert Choice application, the innovation and technology adoption factor has the highest weight with a value of 0.276, followed by the collaboration component with a weight of 0.230. Adoption of innovation and technology is of the utmost importance; this is consistent with the situation of small oil palm farmers in Sijunjung Regency, who have limited access to knowledge to recognize new technologies and are less receptive to adopting new innovations. The improvement of smallholder oil palm inclusive business in Sijunjung Regency, West Sumatra is supported by partnership factors relating to the provision of inputs for oil palm plantations and extension, as
well as encouraging farmers to obtain the most current technical and managerial information about the oil palm industry. The AHP calculation for the alternative plan to improve the inclusive business of smallholder oil palm farmers in Sijunjung Regency, West Sumatra yielded the priority value depicted in Fig. Based on the results of the calculation of the alternative strategy with the highest weight, namely the help of small farmers including Good Agriculture Practices (GAP) and management with a value of 0.251, it was determined that this alternative strategy should be implemented. These results indicate that all palm oil industry experts and stakeholders agree that expanding inclusive business requires good, correct, and ecologically friendly cultivation practices. GAP was established as a cultivation guideline to achieve high production, maximum profitability, and environmental friendliness (Purnamasari et al 2017). By educating farmers about GAP, they may assure environmental sustainability by depending on natural inputs and avoiding the use of harmful pesticides (Mayrowani 2012). Due to the need for a GAP certificate in international trade, the implementation of GAP in agriculture would undoubtedly provide worldwide economic opportunities (Shofi et al., 2019). Farmers might be directly trained as business players as part of these efforts. The government or partners such as cooperatives and rural agricultural training institutions can conduct training and extension.

In addition to planting oil palm and working with smallholders, they should also be provided with management advice to help them run their businesses effectively. Efforts that can be made are similar to GAP training in that they consist of offering training on how to record costs in a modest farming enterprise. Farmers can keep track of their expenses and income by documenting both. This will assist farmers better manage their funds so that they can deploy finances appropriately. To maximize earnings and contribute to the wellbeing of his family. The second-highest alternative strategy, with a 0.215 weight, is the ease of access to financing. Smallholders require funds for the maintenance and revitalization of their gardens, but limited financial sources provide a barrier. Difficult access because of security requirements, such as land certificates, which farmers frequently do not possess. Providing easy access to financing would assist farmers in boosting their oil palm yield. Typically, official financial organizations such as banks pose obstacles to gaining access to credit. This results in loans with high interest rates from informal institutions, which burdens farmers. In in addition to helping farmers' economies, easy access to financing can also help meet the rising demand for palm oil (Sahara et al., 2018)

Managerial Implications
A business that supports inclusive economic growth, produces jobs and wealth for the poor or those at the base of the pyramid is an inclusive business. Small-scale farmers benefit enormously from inclusive business implementation. However, the effect on smallholders is poorly understood. The issue with small oil palms in Sijunjung Regency is that farmers are not involved in the value chain, such as determining the price of FFB, and there is no public report regarding middlemen's pricing decision. The West Sumatra Province Plantation Service will offer PKS with a set purchasing price for FFB. However, there is no price cap for middlemen, resulting in pricing differences between each intermediary. For businesses obviously, this is unfair to tiny oil palm farmers. In addition, smallholders cannot sell their products directly to
PKS due to difficult-to-fulfill restrictions such as quality assurance, timeliness, and contracts, which excludes them from the oil palm business in Sijunjung Regency. This study presents a major alternative strategy for farmers to expand their oil palm business in a more inclusive manner, namely the provision of Good Agriculture Practices (GAP) and management help. Farmers are urged to use GAP in order to boost their production and worldwide competitiveness. The implementation of GAP can assist in the correction of flaws in current agricultural technology, preserve the environment through the certification of the production process, and guarantee the quality of products produced by farmers. A sustainable agricultural system is extensively discussed, but its implementation has not yet caught the attention of farmers. Consequently, farmers must be made more environmentally conscious through the provision of ongoing help and education. GAP training can be initiated by providing information on technology adoption, compiling requirements that must be met in each production process, identifying potential environmental and product quality issues, and maintaining basic financial records, such as recording expenses and revenues from oil palm plantations. Farmers who wish to gain access to funding sources from official financial institutions, such as banks, should also maintain accurate records. According to the results of the AHP analysis of the factors that drive inclusive business, oil palm farmers in Sijunjung Regency should adopt the second priority strategy, namely the ease of accessing finance, initially. Farmers will be more inclusive if they have easy access to funds. Farmers can purchase higher-quality seeds and maintain oil palm plants in accordance with the regulations. Consequently, farmers can boost their output and income relative to the past. Ease of access to financing will potentially have negative consequences, such as the diversion of funds for other uses (paying installments and other debts).

4. CONCLUSIONS AND SUGGESTION

Assistance covering Good Agriculture Practices (GAP) and management is the first priority strategy in this study. The second alternative strategy is the ease of access to finance. Smallholder oil palm farmers in the Sijunjung District can develop an inclusive business utilizing both strategies simultaneously. Based on the findings of this study, the authors offer recommendations so that all relevant parties can support and assist small farmers in becoming more inclusive.

REFERENCES


