

## Research Article

# Farmers' Satisfaction with Oil Palm Business Partnership Patterns

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### ABSTRACT

This study aimed to explain the mechanism of the partnership pattern between PT Sumatra Jaya Agro Lestari and farmers and the level of farmers' satisfaction with the partnership pattern run by PT. Sumatra Jaya Agro Lestari. The location of the study was determined by purposive sampling technique, and qualitative and quantitative data were used in this study. The number of respondents in this study amounted to 84 respondents, who were selected using proportional random sampling technique. The analytical tools used in this research were the Customer Satisfaction Index and Importance Performance Analysis. The results showed that the partnership pattern had 80:20 provisions in which 80% of the total land was cultivated by the company and 20% of the total land was cultivated by the community, and the partnership activities could run well. The results of CSI analysis showed that the obtained 49.9% value indicated the "quite satisfied" criteria. Meanwhile, the attributes in the partnership to be maintained were marketing of crops, Technical Guidance, and Partnership Control Book. The company must also improve the service attributes of the partnership, the main priorities of which are: Response to Complaints and Responsibilities; fewer major priorities, namely (Rights and Obligations) Plantation Development, Obtaining Transparent Information, Provision of *Saprodi* (Production Facilities), and Price Agreements.

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## INTRODUCTION

A partnership pattern is a form of cooperation in the development and expansion of plantations by using large plantations as the core that guides and manages smallholder-owned plantations as plasma through cooperative institutions in a mutually beneficial cooperation system, win-win solution partnership, or mutually beneficial cooperation (Irene et al., 2013). PT Sumatra Jaya Agro Lestari is a company that is part of the Gunas Group, which is engaged in oil palm agribusiness established in 2005. PT Sumatra Jaya Agro Lestari is also the first company to run a core plasma partnership pattern with the community in Bagan Asam Village, Toba District, Sanggau Regency.

The pattern of *inti plasma* partnership is a relationship between farmers, farmer groups, or partner groups as plasma with core companies that have business partners. The core company provides land, rights and

obligations, production facilities, technical guidance, management, accommodations and processes, and markets the products. The partner group is tasked with meeting the needs of the core company in accordance with the requirements agreed between the two parties for the plasma core pattern. The plasma nucleus partnership pattern is a partnership pattern with the core company as the provision of capital while the farmers act as plasma. Based on the rules of the inti plasma pattern, plasma plantations are managed by large plantation companies, ranging from nurseries, planting on land, maintenance to marketing of produce (Matualage et al., 2019).

PT Sumatra Jaya Agro Lestari partnered with 506 farmers consisting of 5 groups of plasma farmers, namely Modang village, Kemantan village, Pelanjau village, Ketanjak village, and Nek Bindang village. The inti plasma partnership pattern carried out by the company PT Sumatra Jaya Agro Lestari aimed to get higher yields and help plasma farmers to prosper. The partnership mechanism was carried out with the aim of measuring the extent to which the goals of the partnership system could be achieved (Damanik & Purba, 2019).

The problems that exist in the inti plasma partnership pattern in Bagan Asam Village were 1) people who agreed to do partnership patterns, especially farmers, did not get their rights from the company, 2) lack of response to farmer complaints, and 3) lack of technical guidance from the company. Problems found in the field could cause dissatisfaction among farmers and the implementation of the partnership pattern being carried out, thus affecting the success rate of the partnership pattern.

## METHOD

This research was conducted at PT Sumatera Jaya Agro Lestari in Bagan Asam Village, Toba District, Sanggau Regency, West Kalimantan Province. Determination of the area or place of research was done by using a purposive sampling method or intentionally. This research was conducted from May to July 2021.

1. The research variable was an attribute, nature or value of an object, person or activity that had a certain variation determined by the researcher to be studied and then drawn conclusions (Sugiyono, 2014). There were five dimensions in measuring farmer satisfaction. This indicator was related to the research conditions, namely the implementation of a partnership pattern that was carried out and measured from a work contract or partnership agreement between the company, PT Sumatra Jaya Agro Lestari, and plasma farmers in Bagan Asam Village, Toba District, Sanggau Regency. The indicators in question included:

1. *Reliability*  
Sub Indicators: Provision of Farm, marketing of harvests, (Rights and Obligations).
2. *Responsiveness*  
Sub-Indicators: Response to complaints, rapidity of payment of plasma results, obtaining transparent information.
3. *Assurance*  
Sub Indicators: Farm Maintenance, responsibility (social responsibility for the community), credit facilities.
4. *Empathy*  
Sub Indicators: Technical guidance (training for plasma farmers, counseling on partnerships), provision of production inputs.
5. *Tangible*  
Sub Indicators: Price agreement, obligation to buy FFB (Fresh Fruit Bunch) from plasma farmers, partnership control book.

The population in this study were oil palm farmers who partnered with PT Sumatra Jaya Agro Lestari in Bagan Asam Village with a total of 506 farmers with a proportion of 196 farmers residing in Pelanjau village, 140 farmers in Modang village, 79 farmers in Kemantan village, 62 farmers in Nek Bindang village, and 29 farmers in Ketanjak village. The number of samples was determined by using the Slovin formula with an error tolerance of 10%, mathematically written as:

$$n = \frac{N}{1 + (N(e)^2)}$$

Based on the Slovin formula (Murwatingsih & Apriliani, 2013), the determination of the number of samples in this study is presented as follows:

$$n = \frac{506}{1+(506(0,1)^2)} = 83,49 \approx 84 \text{ respondent}$$

Analysis of the Customer Satisfaction Index (CSI) was initially done to give a rating using a Likert scale, i.e. a scale that showed the relationship between a statement and a person's attitude towards something. CSI was used to determine the overall level of farmers' satisfaction with an approach that considered the level of importance and satisfaction of the quality indicators of the partnership pattern (Syukri, 2014; Budhi & Sumiari, 2017). The level of importance was symbolized by the letter Y while the level of satisfaction was symbolized by the letter X. The Customer Satisfaction Index (CSI) measurement method included the following stages:

1. Determining the Mean Importance Score (MIS) and Mean Satisfaction Score (MSS). This value resulted from the average importance and criteria of each respondent, with the formula:

$$MIS = \frac{\sum_{i=1}^n Y_i}{n}$$

$$MIS = \frac{\sum_{i=1}^n X_i}{n}$$

Calculating the Weight factors (WF), i.e. changing the average value of the importance level or the Mean Importance Score (MIS) of each indicator into a percentage number (%) of the total average value of the importance level for all tested indicators, with the formula:

$$MFi = \frac{MIS_i}{\sum_i MIS_i} \times 100\%$$

2. Calculating the Weight Score (WS), i.e. the multiplication value between the average value of the level of performance or satisfaction or the Mean Satisfaction Score (MSS) of each attribute with the Weight Factors of each attribute, with the formula:

$$WS_i = WFi \times MSS_i$$

3. Calculating the Weight Average Total (WAT), i.e. adding up the Weight Score of all attributes, which was n, with the formula:  $WAT = WS_1 + WS_2 + WS_3 + \dots + WS_n$ .
4. Determining the Customer Satisfaction Index (CSI), i.e. the Total Weight Average divided by the highest scale (HS) or the maximum scale used (i.e. this study used a maximum scale of 5), then multiplied by 100%, with the formula:

$$CSI = \frac{\sum_{i=1}^p WAT}{5} \times 100\%$$

The respondents' satisfaction level as a whole can be seen from the level of satisfaction criteria. Satisfaction level ranged from 0-100%, and the highest satisfaction was achieved when the CSI showed 100%. Astuti et al., (2012) stated that in determining the satisfaction level, a numerical scale could be created by first finding the range scale (RS) with the formula:

$$RS = \frac{m - n}{b}$$

$$RS = \frac{100\% - 0\%}{5} = 20\%$$

Table 1. CSI Criteria

Index Value (%)	Customer Satisfaction Index Criteria (CSI)
0-20	Strongly unsatisfied
21-40	Unsatisfied
41-60	Quite satisfied
61-80	Satisfied
81-100	Strongly satisfied

Source: Astuti et al., 2012

The results of data collection were then analyzed using Importance Performance Analysis (IPA), an easy application technique to measure attributes of importance and performance that were useful for measuring the effectiveness of the partnership pattern being implemented (Elyusman & Hutami, 2017; Immanuel & Setiawan, 2020). The theory of assessment of the level of importance and the level of performance of each attribute was obtained by adding up the results of multiplying the scores of each scale with the number of respondents who chose the Likert scale. Then, for each factor that affected customer satisfaction, a formula was used (Santoso, 2011).

1. Based on the research findings on the interest level and company performance, a calculation was made regarding the level of conformity between the level of performance and the level of consumer interest. The formula used was:

$$Tki = \frac{Xi}{Yi} \times 100\%$$

2. The average score of the assessment of the level of performance ( $\bar{X}$ ) indicated the position of the attribute on the X axis, while the position of the attribute on the Y axis was indicated by the average score of the consumer interest level in the attribute ( $\bar{Y}$ ).

$$\bar{Xi} = \sum_n Xi \quad \bar{Yi} = \sum_n Yi$$

3. Creating a Cartesian diagram, i.e. a diagonal figure consisting of four parts bounded by two lines that intersected perpendicular to the points (X,Y).
4. X was the average of the performance level factor scores, and Y was the average of the average importance factor scores. The points were obtained with the formula:

$$\bar{X} = \sum_k Xi \quad \bar{Y} = \sum_k Yi$$

After getting the average value of the importance and level of performance of each attribute of farmer satisfaction, the next step was to find the average performance of the attribute of farmers' satisfaction as a whole and then plot these values into a Cartesian diagram.

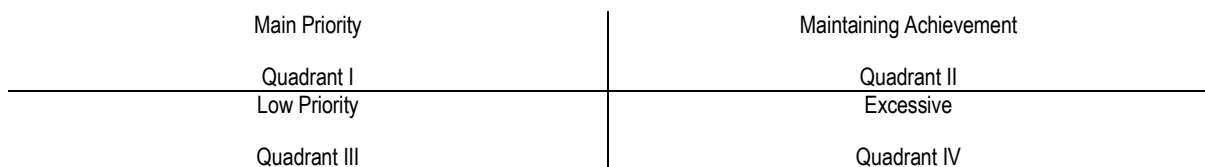


Figure 1. Interest and Expectation Level Diagram (Y)  
 Source: Kamal (2017)

## RESULTS AND DISCUSSION

The results of the tests carried out using the SPSS 20 application showed that based on the 28 question items or questionnaires distributed to members of plasma farmers in Bagan Asam Village, Toba District, Sanggau Regency, it was concluded that the score was greater than 0.212. In this study, the reliability test was measured by using Cronbach Alpha analysis. A questionnaire data was said to be reliable if it had a Cronbach Alpha value greater than 0.60 (Ghozali, 2011). The results of reliability testing showed that from 28 questions, a

Cronbach Alpha value of 0.603 was obtained. The results of the study were in line with Bakhtiar et al. (2021); Relawati et al. (2020); Solimun et al. (2017), which stated that the data was declared reliable if the Cronbach alpha was more than 0.6. The interpretation of the satisfaction level value was that a CSI value below 40% meant that there was dissatisfaction while the CSI value above 60% meant the customer was satisfied (Yanova, 2015). To see more deeply what attributes gave satisfaction value and what attributes were considered unsatisfactory, an Importance Performance Analysis (IPA) was carried out.

The results of IPA revealed that the importance value of the garden supply attribute was 4.04 followed by a performance value of 2.96 with a suitability level of 72.59. The performance value on the marketing attribute of the harvest had an importance value of 4.18 with a performance value of 2.95 and a level of conformity of 70.66. The value of the importance of the rights and obligations attribute was 4.32 and the performance level was 2.26 with a conformity level value of 52.34. The performance value of the response attribute to complaints was 4.62 and the importance value was 2.00 with a suitability level of 43.30. The value of importance on the attribute of speed of payment of plasma results was 4.04 and the value of performance was 2.57 with a conformity level value of 63.72. The importance value of the attribute getting transparent information was 4.06 and the performance value was 1.95 with a conformity level of 48.24. The value of the importance of the garden maintenance attribute was 4.10 and the value of the performance level was 3.64 with a suitability level of 88.95. The value of the importance level on the responsibility attribute was 4.77 and the value of the performance level was 1.70 with a conformity level of 35.66. The value of the level of importance on the credit facility attribute was 3.80 and the value of the performance level was 2.82 with a level of importance of 74.29. The value of the importance level of the technical guidance attribute was 4.87 and the value of the performance level was 2.60 with a suitability level of 53.30. The value of the suitability level of the input supply attribute was 2.99 and the value of the performance level was 1.95 with a conformity level of 65.34. The value level of importance on the attribute of the price agreement was 3.12 and the value of the performance level was 1.98 with a conformity level of 63.36. The value level of importance on the attribute of the obligation to buy FFB from plasma farmers was 4.02 and the value of the performance level was 2.73 with a conformity level of 67.75. The value of the importance level of the partnership control book attribute was 4.81 and the value of the performance level was 2.71 with a conformity level of 56.44.

Based on the value of the level of importance and the level of performance above, the attributes of each quadrant could be determined and described in Cartesian as follows:

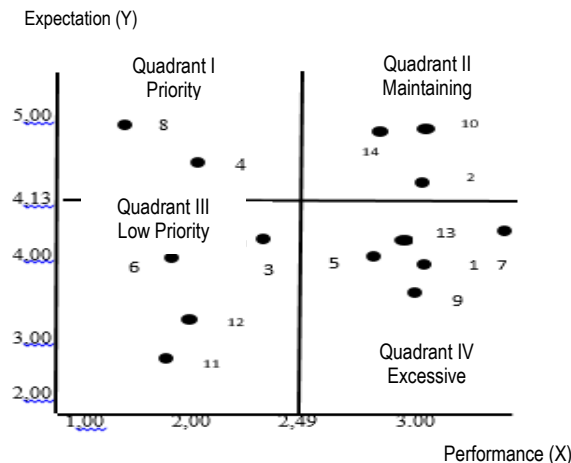


Figure 2. IPA Cartesian Diagram

The Main Priority quadrant was the area for making attributes that were considered important by farmers but the services provided by the company were still below the standard of farmers' expectations. The maintain achievement quadrant was an area that was considered important by plasma farmers and plasma farmers felt happy and satisfied with this service attribute. Judging from the results in the Cartesian diagram above, the service of these attributes must be maintained by the company's performance. The third quadrant Low priority was a quadrant of areas for performance and farmers did not attach importance to this attribute. Finally, the fourth quadrant of excessive priority showed attributes that were considered less important but the company's service performance was considered satisfactory by the farmers.

## CONCLUSION

Farmers' satisfaction on the partnership pattern implemented by PT Sumatra Jaya Agro Lesatari with plasma farmers in Bagan Asam Village was considered quite high. This can be seen from the CSI Customer Satisfaction Index score of 49.91%, which indicated "quite satisfied" criteria in the index value table. The attributes in the partnership that needed to be maintained were marketing of crops, Technical Guidance (Training for Plasma Smallholders, Counseling on Partnerships), and Partnership Control Book. The company must also improve the service attributes of the partnership, namely, 1) the main priority of Response to Complaints and Responsibilities (Social Responsibility for the Community), i.e. the company must improve the response to complaints, and 2) the less important priority, namely (Rights and Obligations) Plantation Development), Obtaining Transparent Information, Provision of *Saprodi* (Production facilities), and Price Agreements.

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