Agribusiness Strategy of Cocoa Farmer’s in Jember Regency, East Java, Indonesia

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Abstract. Research purpose are examine and formulating the internal factors, external resources and various folk cocoa agribusiness management’s in Jember Regency. The study was conducted in Rambipuji and Wuluhan Jember. The study population is farmer households (RTP) cocoa and sampling using random sampling. Analysis of the data used is SWOT. The results showed that many internal factors, external of the various aspects of the management of resources and determining the development of the folk cocoa plantation. As an alternative to folk cocoa plantation development strategy is strength which is owned through that take advantage of the opportunities and chances include resources, business management and infrastructure in folk cocoa.

1. Introduction
Cocoa is one of the mainstay plantation commodities as a major foreign exchange, the source of the income of farmers, job creation farmers, to encourage agribusiness and agro-industry and regional development. Indonesia is now in the production of third-largest cocoa world with share production by 15 percent after Ghana (16 %) and Ivory Coast (40 %) (Department of Agriculture, 2006). Cocoa cultivation’s in Indonesia will be done through three forms community plantation business, namely, large plantations state and private plantations. Wide area cocoa plantation reached more than 992,500 hectares with total production 652,350 metric ton. From the data widespread area, plantation people hold the first stage with 887,733 ha (89.44 %) with high production reached 587,000 tonnes (90 %), (Department of Agriculture, 2006); and there are approximately 965.00 thousands of farm families directly involved in cocoa farm [1]. According to research of Indonesian Coffee and Cocoa Research Institute (ICCRI) that potential cocoa production can be reached more than 2 tonnes/ha/year.

Indonesia's cocoa, especially those produced by the farmer, in the international market is still respected unpretentious low because most was not so well, even the seeds dominated without fermentation, and are the off sourcing high, and contaminated with insects, fungi, or mycotoxins. However, Indonesia still has a prospect that is very big for the development cocoa both for the local market and international market from high upstream and downstream. This was because (a) a natural resources, labor, and rolls off technology that were spearheaded by research centers for cocoa; (b) the government through its strategic plan of Directorate General of the Department of Agriculture, Plantation to assert that cocoa will be developed as leading export commodities after rubber and palm oil. Policy Implementation can be seen from the development cocoa that has been done since the early 1980s. Indonesia’s cocoa competitiveness in the world is still low compared to other cocoa exporters in the market for processed cocoa beans [2]. Increasing demand for world cocoa beans will provide the greatest benefits for Indonesia [3]. One of the policies considered to accelerate the promotion is to impose a tax on the export of cocoa beans so that exporters are not interested in exporting in the form of seeds [4].
The world integrated cocoa bean market with various levels of the market can be traced through trading channels, it seems there are many choices for farmers in selling cocoa beans, namely to (i) collecting traders; (ii) village traders; (iii) sub-district traders; (iv) wholesalers; and (v) exporters. The cocoa beans sold by farmers are unfermented cocoa beans. Because the difference in the price of the original cocoa beans with fermented ones is very small (Rp. 1,000 / kg). also reported the same number [5].

The quality of cocoa beans exported by Indonesia is known to be very low (in grade 3 and 4). This is due to the traditional management of cocoa products (85% of national production beans are not fermented). Such low quality results in the discounted price of Indonesian cocoa beans and products in the international market as much as USD200/ton or 10-15% of market price. Moreover, the export tax of processed cocoa (30%) is relatively higher than the import tax burden of cocoa products (5%); consequently, the number of Indonesian cocoa processing factory continues to decline.5 Cocoa production in East Java has increased annually, but the lack of cocoa processing [6].

Production of the cocoa not only seeds, but various products could be made such as in the form of food and soft drinks with raw materials for chocolate is quite familiar with in the community, among others candy chocolate (cocoa candy), powder chocolate (cocoa powder), and the fat chocolate (cocoa butter) that a half finished product. Cocoa pasta from East Java, Bali and South Sulawesi have different active aroma components compared to Ghana cocoa paste. East Java cocoa paste has an active sensory aroma, aroma chocolate (tetrametilpirazin), with a dominant bitter taste, spicy and sour .[7]

The high fat content of cocoa powder and the color quality of powder that are not comparable with imported products [8]. Avidity consume food and soft drinks based chocolate is in the era millennium was no longer dominated by certain circles, but it has become a common matter be consumed by all layers of society, especially for children and young people. It shows a welcome development on the market outlook food and soft drinks based chocolate. The generally processed cocoa industry in East Java is not competitive because the limited infrastructure and limited access to sources of capital [7]. The increase the welfare community to one of the factors a turnaround community consumption patterns of food and soft drinks chocolate. This condition gives opportunity that is large enough to possible various parties can take advantage of the opportunities by keeping to set priority that there is a basic benefits and cost ratio rational to economic growth, the increase in welfare and regional development community.

To provide in the fact above, is not easy, it is undeniable some cocoa farmers still lack of knowledge and skills to apply ways of managing cocoa plantation. Social and economy matters farmers, local culture, technological innovation and agro-industry cocoa, also prompted more and more focusing of problem in the field. Responding to the question is, it needs to be socialized both in the plantation through dissemination by government officials, establish mentoring, as well as the form of the training by various parties, both private or government. The purpose of this research are reviewing an formulating the internal factors and external factors of agribusiness management of folk cocoa in Jember Regency.

2. Materials and Methods

2.1. Location
The focus of this research is to find an alternative strategy of development of cocoa. On further studies associated with potential position as a superior product agro-food soft drinks to improve the welfare of farmers. The location chosen in Jember Regency especially Wuluhan and Rambipuji distric because of this location adjacent / one location Indonesian Coffee and Cocoa Research Institute (ICCRI) and the others in Kebun Renteng PTPN XII. Collaboration and synergy among cocoa farmers, governments, businesses, and universities is an important condition for the development of folk cocoa.

2.2. Sampling Procedures
The object of research is a farmer households (RTP) cocoa. The samples using random sampling. The primary data source is cocoa RTP structured questionnaire and observation, Focus Group Discussion (FGD) and also field notes. The analysis using a SWOT analysis. According Rangkuti [9] (2006) SWOT
analysis is based on the logic of the determination of effective strategies that can maximize the strength (Strength) and opportunities (Opportunity) and minimize your weaknesses (Weaknesses) and threats (Threat) that be faced. SWOT analysis procedure is as follow:

1) Set a matrixes Internal factors strategy or Internal Strategic Factory Analysis Summary (IFAS) and matrixes external factors strategy or External Strategic Factory Analysis Summary (EFAS).
2) Set a diagram matrixes SWOT; and
3) Set a alternative strategy with matrixes SWOT.

3. Results and Discussion

3.1. Resource Analysis

Internal factors are strengths and weaknesses of the farmers as well as external factors, that is opportunities and threats need to be identified as the basis for determining the cocoa agro-industry development strategy at research sites, Wuluhun and Rambipuji district. The analysis is SWOT analysis, which includes Strengths, Weakness, Opportunities, and Threats. The result of identification of internal factors and external factors in each village

Examines agribusiness management systems cocoa plantations of the people will give instructions and guidance alternative way out to find ways and methods of cocoa plantation development of the people. Factors in the internal cocoa agribusiness people who are members of strengths and weaknesses, as well as external factors summarized in the opportunities and threats, in totality will greatly affect the performance of folk cocoa plantation agribusiness management.

Table 1. SWOT Analysis based Land Resource of Folk Cocoa Seed in Jember Regency

|                      | STRENGTHS (S)                                                                 | WEAKNESS (W)                                                                 |
|----------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| INTERNAL             | • The condition of land suitable for the cocoa plantation                      | • There are still a lot of garden soil which has not been utilized optimally  |
|                      | • The potential for planting area relatively wide                              | • Land management is conventional                                            |
|                      | • Availability of land                                                         | • Accessibility to resources irrigation                                       |
|                      | • Status of land ownership                                                     |                                                                              |
| EXTERNAL             |                                                                              |                                                                              |
| OPPORTUNITIES (O)    | • Land use in accordance with the provisions                                   | • Improve the quality and productivity of land                                |
|                      | • Cooperation, the partnership with PTPN XII to optimization of land           | • Build a system & work produces that are able to improve work passion (hard work, intelligent and quickly). |
|                      | • Optimize the land use with the program cultivation of folk cocoa             |                                                                              |
|                      | • Synergy and collaboration between stakeholders                                |                                                                              |
|                      |                                                                              |                                                                              |
| THREAT (I)           | • Community demands industry to business expand                               | • Needs the strict about land use                                             |
|                      | • Demands that sell land                                                       | • Complete system and bureaucratic procedures that are increasingly decentralized (autonomy) |
|                      | • Agrarian policy                                                             | • Increasing work motivation of farmers                                        |
|                      | • Do law enforcement agrarian                                                  |                                                                              |
|                      | • Increasing transfer knowledge to farmers as empowering                       |                                                                              |
|                      | • Commitment to keep a harmonious working relationship between stakeholders    |                                                                              |
3.2. Land Resources

Based on the analysis of IFAS and EFAS, then alternative strategies that can be used in order to improve the welfare of cocoa farmers, listed in Table 1. Thus the strategies used to improve the welfare of farmers and the development of cocoa is SO strategy or strategies Progressive, is as follows:

1. Optimizing the use of land with cocoa breeding programs and systematic mass of the people.
2. Synergy and collaboration among stakeholders agribusiness of cocoa.

3.3. Farm Management Analysis, Infrastructures

Based on the analysis of IFAS and EFAS, alternative strategies that can be used in order to improve the welfare of cocoa farmers, described in Table 2. Thus the strategies used to improve the welfare of farmers and the development of cocoa as follows:

1. Improvement and expansion of the concern of the government and private programs to cocoa farmers
2. Improved business management systems are effective and efficient
3. Acceleration of rules and policies that provide a conducive climate for the cultivation of cocoa in the country.

Table 2. SWOT Analysis based on Farm Management and Infrastructures of Folk Cocoa in Jember Regency
3.4. Market Resources

Based on the analysis of IFAS and EFAS, the strategies that can be used in order to improve the welfare of cocoa farmers, outlined in Table 3. Thus the strategies used to improve the welfare of farmers and the development of cocoa as follows:

1. Improvement and expansion of the range market in various segments and locations
2. Improved online market system to make it more effective and efficient
3. Acceleration of rules and policies that provide a conducive climate for domestic cocoa marketing

Table 3. SWOT Analysis based Cocoa Market in Jember Regency.

| INTERNAL | STRENGTHS (S) | WEAKNESS (W) |
|----------|---------------|---------------|
|          | • Condivising a niche market | • Mostly cocoa is still sold in form of cocoa beans |
|          | • Chocolate products have market segments | • Accessibility to markets (domestic, export) relatively less |
|          | • Farmers group as a media market information | • Effectiveness and efficiency of less than optimal marketing |

| EXTERNAL | OPPORTUNITIES (O) | THREAT (T) |
|----------|-------------------|------------|
|          | • Cocoa market performance is good (local, export) | • Society demands to obtain quality and better service |
|          | • Population growth | • Applying system of international standards of quality cocoa |
|          | • Increasing consumer income | • Trade liberalization |
|          | • Policy about estate commodities | • Improve the quality and production process of cocoa |
|          | • Good image of cocoa product | • Improve the technology transfer to the public as an attempt of optimal service |

| S-O | W-O |
|-----|-----|
| S-T | W-T |

Cocoa plantation by implementing the concept of synergy of academia, business / private, government) to initiate the program, oversee activities, accompany and advocate on an ongoing basis in cocoa cultivation technology dissemination from upstream to downstream, as well as fostering and directing farmers in accessing information technology in a variety of applications of science, as well as the actors deliver penetrate both domestic and export markets. There are several alternative strategies that can be implemented, as follows:

1) Optimizing the land use with cultivate programs and systematic of folk cocoa.
2) Synergy and collaboration among stakeholders of folk cocoa.
3) Improved performance of organizations (farmers, stakeholders).
4) Improved of the system and local governments to effort to increase local revenue.
5) Effectiveness synergy coordination among stakeholders.
6) Improved performance of professional farmer organizations.
7) Increased public access of farmers to the development of agribusiness systems in order to better cocoa market system.
8) The effectiveness and efficiency of businesses that utilize family labor.
9) Improved and expand funding schemes from both the government and private sectors.
10) Improved system accessibility of farmers on financial institutions banking.
11) Improved performance of the agribusiness in utilizing information and communication technology.
12) Improved online system to system administration and cocoa agribusiness management system to make it more effective and efficient.
13) Construction of facilities and information and communication technology infrastructures.
14) Improvement and expansion of the range market in various segments and locations.
15) Improvement and expansion of the concern of the government and private programs to cocoa farmers.
16) Improved business management system that is effective and efficient.

**Table 4. Policy Strategies of Folk Cocoa Development**

| Numbr. | Policy Strategies | Implementation |
|--------|------------------|----------------|
| 1.     | Optimizing the land use with cultivate programs and systematic of folk cocoa | Planting cocoa in the yard, and on degraded land owned by farmers |
| 2.     | Synergy and collaboration among stakeholders of folk cocoa. | Make a memorandum of understanding between smallholders, ICCRI, PTPN XII and Cocoa Merchants Association |
| 3.     | Improved performance of organizations (farmers, stakeholders) | Organizing technical training and managerial capabilities include pre-test and post test |
| 4.     | Improved of the system and local governments to effort to increase local revenue | Program activities integrated agribusiness cocoa in rural |
| 5.     | Effectiveness synergy coordination among stakeholders | Jember regency government as an integrator between the activity program / cross-sectoral |
| 6.     | Improved performance of professional farmer organizations | Empower farmer groups through education, dissemination of technology (demonstration-plot / cocoa cultivation) |
| 7.     | Increased public access of farmers to the development of agribusiness systems in order to better cocoa market system | Department of Estate and Forestry Jember Regency scheduled a formal and sustainable cocoa development program a priority activity |
| 8.     | The effectiveness and efficiency of businesses that utilize family labor | Assistance cocoa farmers farming feasibility analysis |
| 9.     | Improved and expand funding schemes from both the government and private sectors | Providing ease and low bank interest rates both government and private bank to cocoa farmers |
| 10.    | Improved system accessibility of farmers on financial institutions banking | Included for active participation as a trainee banking |
| 11.    | Improved performance of the agribusiness in utilizing information and communication technology | Organize courses for use computer technologies |
| 12.    | Improved online system to system administration and cocoa agribusiness management system to make it more effective and efficient | Empowerment of farmer groups in information technology improvement |
| 13.    | Construction of facilities and information and communication technology infrastructures | Indonesian Telecommunication Corporate can realize the program of the internet into the village |
| 14.    | Improvement and expansion of the range market in various segments and locations | Linking cocoa farmers with an association of producers and marketers of cocoa |
| 15.    | Improvement and expansion of the concern of the government and private programs to cocoa farmers | Revitalization ICCRI institution as cocoa become focusing |
| 16.    | Improved business management system that is effective and efficient | Training in phases starting cocoa farm management of farmer groups to individual farms |
Revitalization of ICCRI as focusing for development of cocoa to be more involved and contribute significantly to the real and the surrounding farming community, related to management of the people's business scale cocoa cultivation and transfer of technology and innovation fields cocoa agro-industry and marketing. Meanwhile PTPN XII who have more resources in management, capital, human resources, technology, and marketing networks do harmonious cooperation network based on mutual openness, fairness, and need each other so that the cocoa farmers to increase production and penetration of the local market and export cocoa. In addition, Department of Estate and Forestry Jember Regency, to continue to organize periodic and ongoing programs and activities in developing, directing, and accompany and advocate for the cocoa farmers. Forms of seed aid programs, and capital incentives and ease in providing small loans in order to facilitate the cocoa farmers are expected to advance cocoa plantation management.

4. Conclusions
Develop a folk cocoa plantation agribusiness, requires a review of the two aspects (internal and external) of the business environment especially if wants to enter foreign markets. Alternative strategy to develop the cocoa plantations of the people is to adopt a strategy SO, meaning the power that take advantage of the opportunities and opportunities open include resources, business management and infrastructures of folk cocoa

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