

Strategy and Structuring Development System Sesame Agroindustrial in Indonesia

Luluk Sulistiyo Budi

[#] Faculty of Agriculture Agroteknologi Studies Program, Merdeka Madiun University,

No 79 Serayu Street Madiun, 63133 Indonesia

E-mail: luluksba@yahoo.com

Abstract— Strategy of adding value and competitiveness of agricultural products can be made through the institutional management of agro-industry. The aim was to determine the development and structuring of institutional agro sesame. The methods using interviews, field studies and expert discussions conducted in the area of development centers sesame. Analysis of component development using analysis process herarki and structuring institutional using Interpretative Structural Modeling (ISM). The results of the analysis showed that the key factor sesame agro-industry development is successive employers (0.131), local government (0.127), Department of Industry, Trade and Tourism (0.109), and the Department of plantation and forestry (0,102). While the structure of the system development objective element, element requirements, the main constraint element, element benchmarks, elements of the institutions involved, the public sector, which affected elements, elements that change is possible, and the activities required elements have key elements that must be considered.

Keywords— Put your keywords here, keywords are separated by semi colon.

I. INTRODUCTION

The most fundamental issue that is currently facing and is predicted to continue to happen in the world are providing food needs, remember; First, the population continues to increase and the increase in the quantity of food needs. Second, efforts to meet the food needs will face three major obstacles, namely shrinkage of agricultural land, decreasing availability and quality of water to support the food production process, and the dynamics of climate change are increasingly difficult to predict. [1]. However, still open to achieve this through the development of agro-industries. (in terms of availability of raw materials and market demand), in addition it has a strong relationship both backward and forward with other sectors [2]. The main characteristics of the corresponding AEC is a single market and production base, a highly competitive economic region, a region of equitable economic development, and a region fully integrated into the global economy [3], in Indonesia will be able to follow it. stated that the development of agribusiness in integrated systems and simultaneously can be a primary mover for the increase in the real income of farmers and communities, creation of job and business opportunities, as well as the growth and development of the region as a whole and sustainable. With this system approach, agribusiness is

expected to be the locomotive of national development (lead agribusiness development strategy) with agro-industry as the core or as the main driving force [4];[5].

This strategy emphasizes the need to make agro-industry as "leading" economic development sector [6], because agribusiness / agro able to serve as a counterweight in the process of economic transformation in the areas of employment and business opportunities, poverty reduction and economic growth stabilization [7]. Similarly, the development of agro-based crops, highly prospective support community economic development through adding value and competitiveness [8][9]. however to date in Indonesia has not many research activities leading to the feasibility of agro commodities sesame. Relative to the purpose of this study was to determine the strategy and structuring agroindutri sesame in Indonesia.

II. METHODOLOGY

Utilization of comparative advantages in the form of potential areas (local natural resources) is expected to guarantee the sustainability of income sources for development and improving regional economic performance [10]

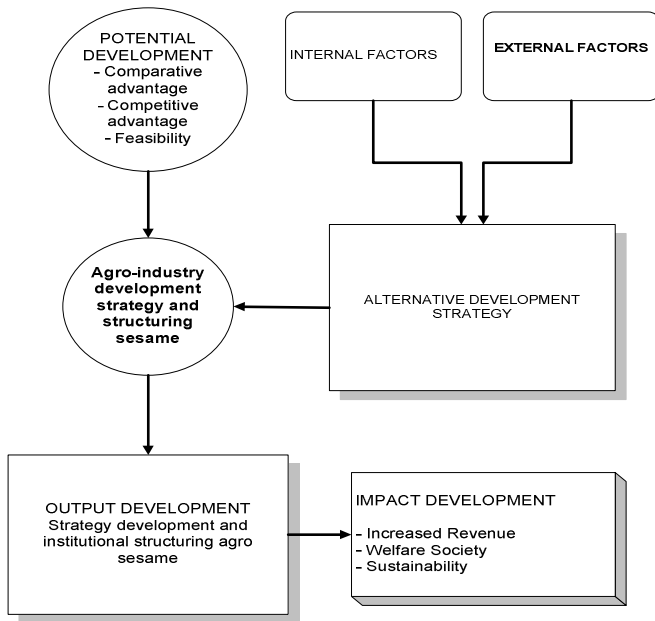


Fig. 1 Example of an image with acceptable resolution

The research was conducted in August-December 2012, in Madiun County Region East Java and Object Sukoharjo research is sesame-based SMEs. Stages of data collection and research Data consisted of secondary data and primary data obtained from literature review, questionnaires and expert opinion (expert interviews and discussions) that begins from the selection of experts consisting of practitioners and academic policy makers. More research flow chart is presented in Figure 2

III. METHODS OF ANALYSIS

Development strategy analysis using Analytical Hierarchy Process (AHP), which is an analysis that is used for decision-makers to understand the condition of the system and help make predictions in decision-making. Avoided wherever possible in its application including the simplification of the assumptions made in order to obtain qualitative models, but it should still maintain complex models as before [11]. Institutional structuring using the ISM technique assessment process group (group learning process) to produce the model structur subject to photograph a complex of a system through a carefully designed using graphics or sentence [10]. ISM engineering methodology is divided into two parts, namely the preparation of hierarchy and classification of sub-elements. ISM is a basic principle in the process of identifying the structure of a system that can provide high-value benefits in order to formulate effective system in making better decision. The purposes of classification of sub-elements can be described in four sectors as well as the final results of the ISM technique diagram the structure and key elements of the matrix in the form: DP-D (Driver-Dependence) that describes the classification of sub-elements:

Sector 1. Weak weak driver-dependent variables (Autonomous), in the sector variables are generally not associated with the system, but may have little relationship,

but the relationship could have been stronger. Sector 2. Weak strongly driver-dependent variables (dependent) variables in this sector are generally not free. Sector 3. Strong driver-strongly dependent variables (linkage), variables in this sector should be studied carefully because of the relationship between variables is not stable. Every action on the variables that have an impact on other variables and feedback effects magnify the impact bias. Sector 4. Strongly driver-weak dependent variables (independent) variables in this sector is the remaining part of the system which is hereinafter referred to as independent variables.

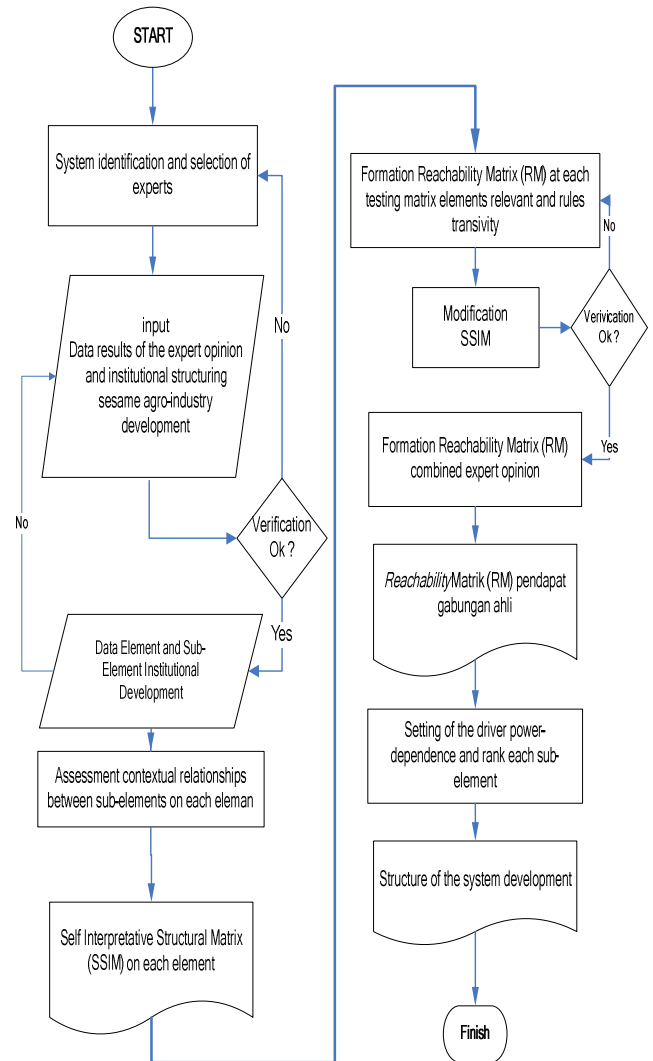


Fig. 2 Flow chart of the study

IV. RESULTS AND DISCUSSION

Priority development of agro-industry sesame factors obtained from analyzing the development of the system components are arranged hierarchically using AHP techniques. The component factor comprises 11 sub-components, namely market demand, financial feasibility, processing technology, human resources, infrastructure, government policies, Ease of bureaucracy, availability and quality of raw materials, financial support services, Business

Climate and Quality Standards. Actor components comprising 13 sub-components, namely local government, Lemlit / Perti, Employers, Consumers, Farmers sesame, Department of plantations, DisPer letterhead and SMEs, financial institutions, broker, Exporter, BPTP, association entrepreneurs sesame and Information Office While the objective component consists of 11 sub-components, namely an increase in farmers' income, an increase in the local economy, increasing added value, preservation of the environment, improvement in land productivity, increased revenue (Revenue), Featured Regional Development Potential employment, human resource development, Improving product competitiveness and increase state revenues.

AHP analysis results of the component factors, actors, and the purpose of agro-industry development prospects more sesame presented in Figure 3.

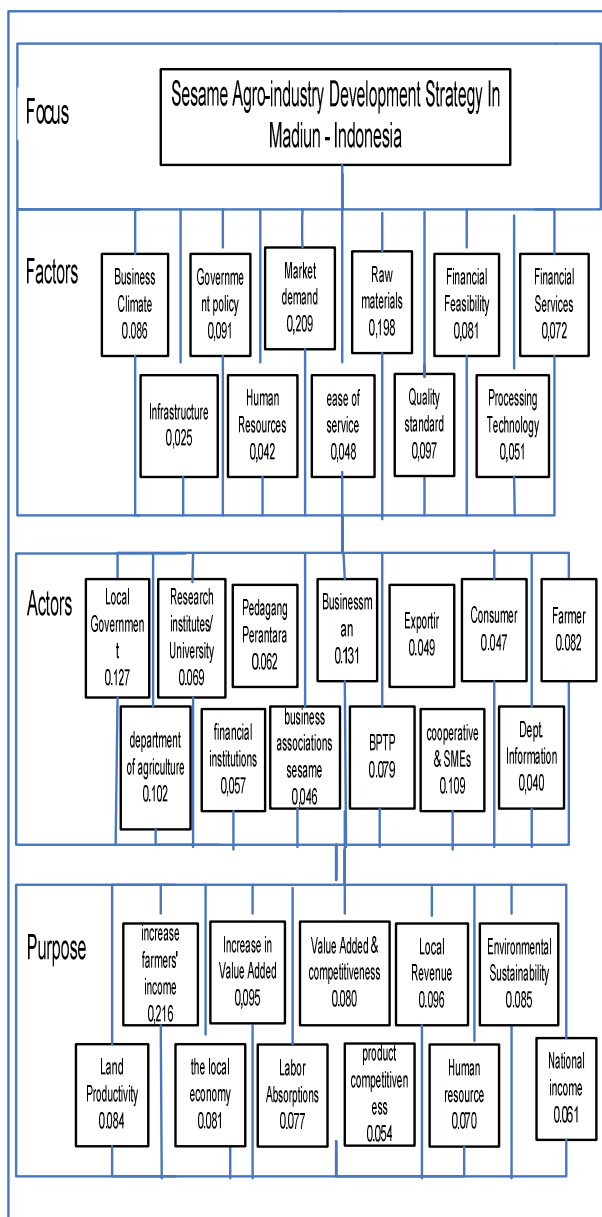


Fig. 3. Results of analysis of agro-industry development strategy sesame using AHP

Shown in Figure 3, the priority component is market demand factor (0.209), raw material (0.198), quality standard (0.097), and government policy (0.091), so on. This gives a sense that the market demand is a major supporter of the development of agro-industry component of sesame, as well as availability of raw materials / PUD (nggulan potential area) is the driving component of an agro-industrial development, as well as the presence of product quality standards and government policies that favor. The main actors sesame agro-industry development is largely determined by the role of the entrepreneur (0.131) regional government (0.127), Office of cooperatives and SMEs (0.109), estate duty (0.102). and so on. It means that the desire of employers, as the main actor of the area would be highly prospective for the establishment of agro sesame. While the goal of developing agro sesame component is to increase farmers' income (0.216), an increase in the local economy (0.096), value added (0.095), maintenance of environmental sustainability (0.085), an increase in productivity of land (0.084) and so on. This means that the goal of development of agro-industry will lead to the improvement of sesame farmers' income as a primary objective. Besides, the increase also affected the local economy, including environmental issues and increase land productivity.

Furthermore, the literature review and expert studies by using analytical techniques ISM suggests that structuring the development of agro-sesame are 8 (eight) elements that should get the attention; elements of development goals (13 sub-elements, The first priority is to increase the productivity and production of sesame plant), the elements need development (13 sub-elements, The first priority is the availability of skilled human resources in rural areas), the main elements of the development constraints (12 sub-elements, The first priority is not guaranteed continuity of raw materials and low crop productivity and product quality), elements of successful development benchmarks (13 sub-element, The first priority is increasing crop productivity, increase farmers' incomes and welfare of sesame), elements of the institutions involved in the implementation of development (13 sub-elements, The first priority is public or sesame farmer groups), elements of the public sector, which affected the development (13 sub-elements, The first priority is sesame farmers), elements of possible changes in development (12 sub-elements, The first priority is the development of the rural economy, a sustainable farm, the distribution of development, the growth and development of agro-sesame), and activities required element in the development of action plans (10 sub-elements, The first priority is the needs analysis through a translation program, and preparing land stewardship). Furthermore, each organized into a hierarchical structure in order to know the relationship between sub-elements and sub-elements plotted into four sectors, namely linkage, independent, dependent and autonomous.

The structuring element which is an important concern is the necessary element in the development activity, Based on the matrix driver power and dependence (Figure 4) shows that the sub-elements required activities, the development of intensive systems for the investment (A-6) and the development of information systems (A -8) are in sectors

dependent, indicating that it has a sub-element of a very high dependence on other sub-elements, but has a low driving force, so it is important to consider in the development of agro-sesame. Sub-element of the development of engineering system models (A-4), the formulation of regulations to support the development of (A-5) improvement of business license procedures (A-7), and identification of the types of prospective agro products (A-10) are in linkage sector. This sub-element means having a high driving force, but have a high level of dependence on sub elements other required activities. Any appropriate action on the sub elements would result in successful development of agro sesame, while the weak action on the sub elements would result in failure of program development, therefore it is necessary to study the sub elements carefully.

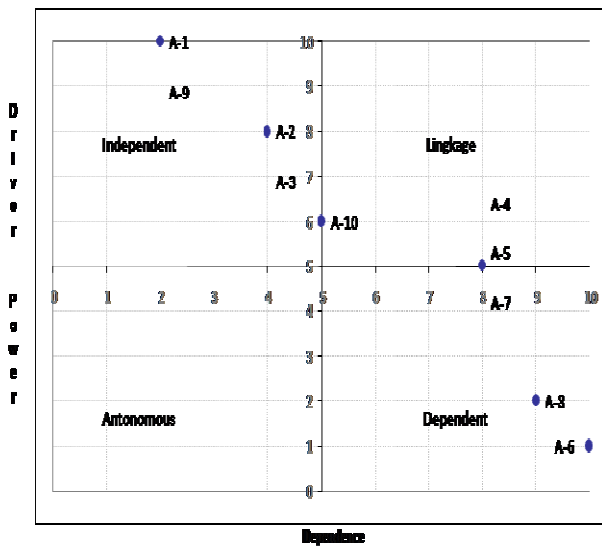


Fig. 4 Driver power-dependence matrix elements needed in the development activity

V. CONCLUSIONS

Results of the analysis and structuring of agro-industry development strategy in Indonesia sesame can be concluded that in developing agro sesame in need is the main contributing factor market demand as the major factor that must be considered and the availability of raw materials. While the main actors are entrepreneurs and support from the local government. As a development objective is to increase income and welfare of famers. Structuring the development of agro-sesame obtained 8 (eight) in which the key elements of each sub-sub elements are mutually linked and cannot be separated, but can be arranged in a hierarchical priority associated with a major role in developing the agro sesame.

[1] Lakitan. B, (2012). Build Agro-Industry Partnership, Towards Security and Food Sovereignty. Keynote Speech at the National Seminar on World Food Day (HPS) XXXII. Palangkaraya 15-16 October 2012

[2] Supriyati and Suryani E. (2006). The role of, opportunities and Agro-Industry Development in Indonesia. Agro Economic Research Forum, Volume 24 No.; 2 things 92-106.

[3] Lakitan. B. (2013).Agro-Industry Policy-Based Resource to Support Local Food Independence Enforcement Toward the ASEAN Economic Community in 2015. Keynote Speech at the National Seminar on World Food Day (HPS) XXXIII. Padang 21-22 October 2013.

[4] R. Pambudy. Agribusiness Livestock Extension System. Graduate School Dissertation, Bogor: IPB.1998

[5] M. S. Didu. Design Build Decision Support System Development for Agro Oil palm Regional Economy [dissertation]. Bogor: Graduate, Bogor Agricultural University. 2000

[6] INDEF, Industry Outlook 2012. Strategy Acceleration and Expansion of Agro Industry. Ministry of Industry of Indonesia. 2011

[7] Erwidodo. Structural Transformation and Industrialisasi Agriculture in Indonesia.1995.

[8] Supadi.S, Friyatno, A. Askin,. Analysis of Development of Agro Commodities plantation People In Support of Increasing Agricultural Sector Competitiveness. Agricultural Economics Research Institute Research Report. 2003

[9] Supriyati, A. Setiyanto, E. Suryani and H. Tarigan. Analysis of the value added through Agro Rural Development. Socio-Economic Analysis Center Per tural Bogor. 2006

[10] Eriyatno , Science Systems: Improving the Quality and Effectiveness of Management. Vol.1. Bogor: IPB Press. 1999

[11] TL.Saaty. Decision Making for Leaders. Analytic hierarchy process for decision-making in complex situations. Translation. Jakarta: PT. Puataka Binaman Pressindo. 1993